

# Grass Roots

*Craft and self-sufficiency*

*For down to earth people*

AUST \$3.50

Australian and  
New Zealand Edition

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FEBRUARY 1988

•  
Basic Pottery

•  
Cord Wood  
Building

•  
Bushfire Safety

•  
12V Wiring

•  
Growing Mangoes

•  
Homemade  
Back-pack





# Great Reading

from Night Owl

## Community Markets — A Practical Guide

*John van Tinteren*

A fascinating description of how to live off the earnings from a market stall. John has wide experience in starting and managing a market, and offers practical advice to those wanting to make a living like this.

*p/b 128 pp*

*\$13.50 post paid*

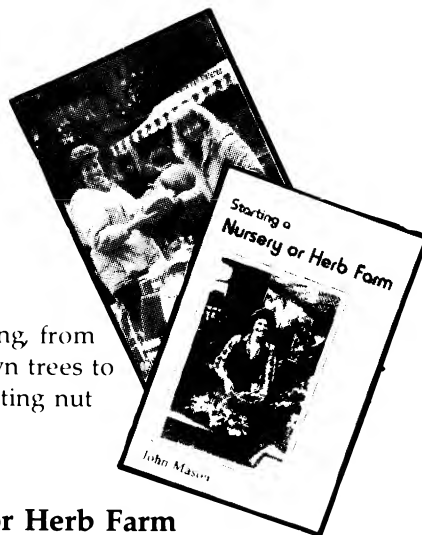
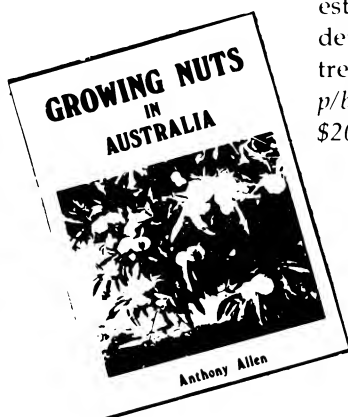
## Growing Nuts in Australia

*Anthony Allen*

An authoritative book on all aspects of nut growing, from establishing a nut grove and propagating your own trees to details of each nut type. A must for all those planting nut trees for food or profit.

*p/b 160 pp*

*\$20.50 post paid*



## Starting a Nursery or Herb Farm

*John Mason*

If you have ever thought of earning some extra money from your gardening interest then you will love this book. It describes how to start a plant business, discusses management, propagation, herb production and herbal products.

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*\$8.50 post paid*

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*Ron Edwards*

Chapters include living in the tropics, dealing with local government, choosing land and implements for a small holding, gardening and growing instructions for over 120 tropical fruits.

*p/b 136 pp*

*\$15.50 post paid*



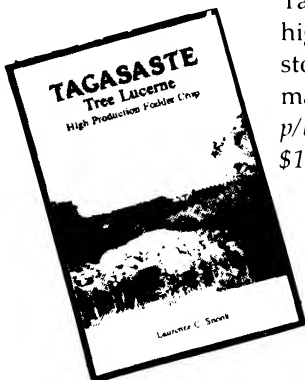
## Tagasaste Tree Lucerne — High Production Fodder Crop

*Dr. L.C. Snook*

Tagasaste, commonly referred to as tree lucerne, produces high protein fodder, grows quickly and is relished by stock. Dr Snook explains how to grow Tagasaste for maximum yield. An ideal crop for any farmer.

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## The Bullock Driver's Handbook

*Arthur Cannon*

This book contains a how-to-do-it guide, with details of making the tackle, training bullocks and making your own cart. This unique piece of Australian history makes for fascinating reading.

*p/b 136 pp*

*\$15.50 post paid*

**NIGHT OWL PUBLISHERS: PO Box 764 SHEPPARTON 3630**



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Front Cover: Pottery is an immensely satisfying craft because you are involved and in control of all the stages through to the finished product. Building and firing your wares in a simple raku kiln like this is not beyond the amateur potter and becomes a necessity as experience and enthusiasm grow. See Margaret Devine's article on Basic Pottery on page 22 of this issue.

Back Cover: One of the tragedies of living in a hot and highly combustible country like Australia is the frequency of bushfires and the devastation they leave behind. But nature has its ways of ensuring survival and it seems a miracle to revisit a bare blackened forest some months later and see the eucalypts bravely refoliating, like those in the photo.

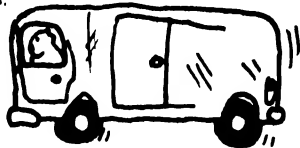
For advice on surviving bushfires read Joan Webster's article on page 18.

Distributed to newsagents by Gordon & Gotch.

# Feedback Link-Up Feedback

## Dear Grass Roots,

My husband and I have had no success with growing LEMON TREES. Each time we have transplanted a young lemon tree from the nursery into our soil, the leaves have gradually turned yellow and it doesn't grow or produce fruit. Do any readers know the reason for this? We would love to hear from anyone who has some information about lemon trees.



C & T Donnelly  
RSD 916  
DELORAIN 7304.

## Dear Folks,

I was wondering if any of your readers could give me any information about KERO FRIDGES. We were given one and have followed everyone's advice about tipping it upside down, and taking it for a long ride up a rough country road, but it still won't get cold. We were told it could need regassing but can't find anyone who can do it.

Also could anyone tell me anything about a plant called DEVIL'S APPLE and where to buy it. I believe it's used in the treatment of eye cancers in cattle.

Here's a tip for KNITTERS — when knitting on 4 needles, slip a rubber band on one end to stop stitches falling off. Best wishes to all.

V Moulders  
C/- PO  
EXETER 2579.

## Dear Megg and David,

I wonder if anyone knows of a drug free remedy for RYE GRASS ALLERGY (swollen, red, puffy eyes and blotches on exposed skin). Bathing in unprocessed bran helps gradually, but I was looking for something that works instantly, the victim is 9 years old and also an asthmatic. At present we are having some really lousy weather, the veggie garden has been flattened, the chook house flooded, but at least our house is intact, not like other people in this state.

With thanks for your magazine and a happy and peaceful New Year to all.

Amanda Hanson  
83 James St  
MORPETH 2321.



Edited by Megg Miller and Kath Harper.

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SHEPPARTON 3630.

Grass Roots is produced for those who wish to regain control over their lifestyle by exploring the alternatives to modern mass consumption. Whether you've just started out or you're an old hand, why not share your experience and knowledge with other readers of Grass Roots. All contributions of articles and photos are welcome.

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## Dear Megg and David,

This letter is a plea for help. I am attempting to start a campaign against the indiscriminate use of 1080 POISON in this state, however I am finding it extremely difficult to obtain any information on the detrimental effects of this substance. Any information your readers can supply will be gratefully received. Thanking you in anticipation.

Alan P May  
PO Box 432  
NEW NORFOLK 7140.

## Dear Ann and Ian McKechnie,

In reply to your inquiry for treatment for RINGWORM, homoeopathy can be very effective. The three main remedies used are arsenicum album, sepia and bacillinum, finishing sometimes with carbo veg high potency. The potency for the three will depend on the length of time the complaint has been present and the severity of the infection. I will be happy to help with these if you write or call me.

Rodney Irvin  
186 Ross River Rd  
AITKENVALE 4814  
Ph: 077-752-566.

## Dear Grassroots People,

I am living in a caravan, on a property 15 miles from town, and spring is here. There has been 32 mm rain 10 days ago and all looks so good, the grass has a short but green shoot coming through, the trees all have new leaves and the bauhinia are flowering. One wakes to the song of birds each morning, and the trees are full of the buzz of bees. But with all this beauty to start the day with, one soon has to come back to the harsh realities of life. Spring is here, but with the temperatures we have been experiencing this last week one would think it was mid summer, (39 degrees most days). The rain that we had was very acceptable, but it was the first that had fallen in many months. The stock were becoming very poor, especially the house cow, a 4 year old Friesian heifer, so by the time we realised that she was in calf, she was becoming very weak. I ordered feed for her, thinking that she would not calve till about Christmas time, however, this morning when I went to help her up, before the others went to work, she had started to calve, and of course was too weak for that, so I had to give a helping hand. The calf is alive and is a little heifer, but I have had to put shade over them, and am carting feed and water continuously today. The high temperatures have also put the chooks off the lay. The garden is suffering from heat exhaustion, and we have planted a little of a lot of things so that we have a few things to keep us going. We have been living on all home grown vegies for quite some months now, and I also grow pot plants for sale at fetes and flea markets.

My main problem is that I have access to some BEEHIVES that are all full of honey. I don't have any of the necessary gear, like smoker or honey separator, or any knowledge of how to go about doing the job. I was wondering if there is someone who could help me, either with advice or better still, who would like to come here and spend a little time with me and give me a few lessons on the practical side of BEEKEEPING. I have been reading all that I can lay my hands on about bees, but haven't been able to find anywhere I can buy a few essentials or the price of same. I am living on a pension and am not sure if I would be able to afford to buy, so have been wondering if it would be possible to make a smoker. I have never actually seen one so am lost before I start.

I have been ploughing through all the back issues of *Grass Roots*, as I have only recently been introduced to same, and have found it the best reading that I have come across. Firstly there was someone inquiring how to COOK OLD HENS. I had a problem with them also, until I started cooking them in the crockpot. I just put them on before I go to bed at night and get up in the morning to a perfectly cooked chook, tastes like chicken. Somewhere else I see someone wanting to know how to DRY PARSLEY. I just cut all the stems off, put the leaves through the food processor, and leave in a dish to dry. With the nice hot days that we have up in this area, usually 2 days are sufficient, and it does not lose its colour.

I would love to hear from anyone who would just like to write for any reason at all, just for an exchange of experiences. And to Megg and David and all who have anything at all to do with making the magazine possible, I say thank you and keep it up.

Monty Seng  
C/- M E Bryant  
PO Box 199  
CHARTERS TOWERS 4820.



# Feedback Link-Up Feedback

**Dear Megg and David,**

*Grass Roots* sells so fast around this area I thought I'd prefer to be on the safe side and have it sent direct. It's a wonderful mag: it has helped me no end with problems, such as gardening and animals, not to mention giving me a good laugh when I really needed it. I have related so often to other readers' problems throughout these pages and it pleases me to know we're not the only family that has its ups and downs. Although at times, you do feel you are, when all goes wrong — which as you know is often.

Well must go and get Charlie (my pig) once again out of the vegie patch. With love and happiness to you.

**Susan Dunkley Wise  
Lot 1 Hughes Rd  
PLAINLAND LAIDLEY 4341.**

**Dear Grass Roots Readers,**

I am currently trying to gather together the addresses of persons or seed houses that supply **HARD-TO-GET VEGETABLE SEEDS** that could be built into a handy organised reference for the home gardener. I am particularly interested in obtaining a number of open-pollinated (non-hybrid) varieties of vegetables like the Early Leaming variety of corn, as I have found it really difficult to obtain these seeds. I would like to hear from anyone who could help me with this project.

**John Mulligan  
P O Box 691  
GRAFTON 2460.**

**Dear GR Readers,**

Our local Parks and Wildlife ranger informed us that an area of our property, adjacent to the Wollom National Park is an ideal environment for the **BRUSH-TAILED WALLABY**. This little creature is on its way out, like so many other endangered species. The NP & W service is interested in sightings, photographs, collections of droppings, in fact any evidence pertaining to this little creature.

I don't have time to camp out on the mountain to investigate but would like to assist in the research by offering a welcome to any genuine persons interested, to camp on our property or to use it as home base for an investigative expedition. There are many caves on this particular hillside and good shelter. There must be no rubbish left behind and only people with some bushcraft experience should attempt the project. A 4 wheel drive vehicle is not necessary. The terrain has no roads or tracks and is steep and rugged. The NP & WS will tell you what to look for, droppings collected will be sent away to be analysed and identified even if the little creature itself is not sighted. The shape and size of droppings are apparently distinctive and recognisable.

There is no prize for finding the existence of a colony, just the satisfaction of knowing that its habitat has been identified, its existence is verified, and both can be protected in future.

**Peggy McIntosh  
Lot 7 Clark Rd  
BULGA 2330.**

**Dear Readers,**

I am arriving in Sydney in the beginning of March from NZ and would like to meet some *Grass Roots* readers. I have had some experience at dairy farming and have basic common sense. I am interested in hearing differing ideas on **ALTERNATIVE LIFESTYLES**, organic gardening and positive thinking. I would like to be able to help and learn from anybody who is willing to show me their ideas, to gain a better understanding of what would be appropriate to myself.

**Patricia Mabbett  
93 Kiwi Rd  
Pt Chevallier  
AUCKLAND 2, NZ.**

**Dear Grass Roots People,**

Hi! Are there any GR readers in the **TEMORA/WAGGA REGION** who would like to make a new friend? I have just moved down to Temora from Sydney and would love to meet some like minded people. If you're building or doing lots of farm work, I could help with that too sometimes. I'm 23 and interested in just about anything, but especially gardening and farming, being close to nature, art and crafts, good books, social issues and current affairs. I hope to have some land one day (in the distant future) but at the moment I'm living in town, thinking about a vegie garden. Also, if there's anyone who would just like to write and talk, please do.

**Katie Landers  
128 Twynam St  
TEMORA 2666.**

**Dear Sir/Madam,**

I am a reader of your magazine and enjoy it very much. I thought that other readers might be interested to hear of our experiences at a **HEALTH FARM** near here. It is set in a quiet rural setting — birds, butterflies, kangaroos all abound, a tropical fruit orchard is established and herbs are home-grown. It is run by an effervescent and dedicated continental lady, Emma Rimat who has worked extensively with nutritionists and doctors over many years. There is an organised daily programme of sound nutrition, exercises, aquatherapy, herbal baths, daily foot and body massages, meditation and relaxation exercises and correct breathing techniques.

My husband Denis had been very sick for a long time from problems arising from an extensive stay in an intensive care hospital unit with chronic abdominal problems. Following Emma's treatment and advice, he feels and looks so much better. He says he found it quite confusing to read all the information and reading literature available — he feels that Emma packaged it all together in a most sensible agreeable form. He feels so much better now that he has learnt 'how to put it all together'. I visited the health farm after seeing the vast improvement in my husband's health, and I can only testify as to its worth and value. I am definitely a more informed person about my own personal lifestyle and I feel a much healthier and relaxed person. Other guests of Emma's have expressed similar positive viewpoints on how much the treatment had helped their health.

I was so pleased to see the results that had taken place in my own family I felt that a lot of readers would welcome reading about such an establishment where they could go to receive the correct advice and to be educated to achieving a rewarding better and healthier lifestyle.

**R Gracie  
15 Acacia St  
TOWNSVILLE 4812.**

**Hello,**

Megg was right when she told me she was sure we have taken on a huge task with the **SEED SAVING** affair. Thank you to *Grass Roots* for having given us the first batch of members. The seed savers network is growing, sometimes a little too rapidly. We've just finished printing the spring newsletter with hundreds of open pollinated vegies offered. Our 4 kids (12, 10, 7, 5) are wonderful. They had to cook and wash up for us the last two weeks while we had a passionate love story with the seed savers. Thanks to all GR's for their support.

**Michael and Jude  
Box 24  
NIMBIN 2480.**

**Dear Megg,**

I am so pleased to have appeared in the August issue concerning **WATER**. And on that subject, we here in the western United States have lost hundreds of thousands of acres to lightning fires . . . the mountains being so tinder-like with our short rainfall last season. We've been rubbing our rain-stone, but probably won't see rain for another month. Our well, though a trickling faucet, has kept up with our needs this long dry time since the last rains, some time in April. But going back to *Grass Roots*, we found it to be so unpretentiously enjoyable . . . and it gave us such a beckoning foreign touch, that we dreamed one whole evening away talking about how . . . if we were younger . . . Australia would be a place to settle. Certainly, as graduates of the wayward ways of water supply, we could embrace your arid land.

**Cheryl Diane Westbrook  
12303 Margie Lane  
GLEN ELLEN CA 95442  
USA.**

**Hi Fellow GR Readers,**

I am writing with the hope that someone may have a solution to our problem with **LEECHES**. Even though they only invade a small area of our property (around the underground spring) they are certainly unwelcome, especially in the hot summer months when we are wearing thongs. Any suggestions will be most welcome, even on how to prevent them getting on you!

Also I am trying to find a long lost friend — **PETA MCAULIFFE** — if anyone knows of her whereabouts please contact me at the address below. The last time I heard from her she was in northern WA about 6 years ago. I have since married in case you don't recognise the surname Peta.

**Brenda Darley  
150 Parkes Rd  
COLLAROE PLATEAU 2098.**

# Feedback Link-Up Feedback

**Dear GR,**

We are a couple of 'New Australians' from Poland. At present we live on seven acres south of Brisbane and we like it. I work from home and even though the money is just enough to keep us going, we decided to never go back to any city again as we like the privacy, birds, trees and quietness most of all. We have a veggie garden, a few chickens, a horse and I keep bees.

We also have two sons but now my wife is pregnant so if I am lucky enough I will have a daughter as well. The reason I am writing this letter is that we feel our children are MISSING a lot by not having a GRANDMA or GRANDPA to talk to. Perhaps a senior citizen would like to correspond with us with the idea of becoming part of our family.

**Philip and Emilia Markus**  
Lot 3 Teviot Rd  
JIMBOOMBA 4280.

**Dear Megg and David,**

I write with a request stranger than fiction. I have a morbid dread of SNAKES (almost a phobia) and am hoping that some reader knows of an effective repellent for them around the house. I have lived on a farm as a child and realise that these little beauties appear too close for comfort from time to time according to the dryness of the summer. We hope to be moving out of town onto our own 100 acres in the near future and I can see my old fears being rekindled. Some way of effectively keeping snakes away from the house would make my life unbelievably pleasant. Any suggestions please?



**J Anastasi**  
3 Eyre St  
WAGGA WAGGA 2650.

**Dear Readers,**

Here I am at 55 and, after a very busy life bringing up two children alone, I am now a single woman again and reasonably affluent, compared to the bad old days. I am thinking about early retirement from my university job; although it has always been interesting, there is not much further to go. I would still like to work but I feel the need to BREAK THE MOULD and make a fresh start, possibly in warmer climes than Canberra. I certainly have itchy feet and feel like wandering in search of new facets of myself. I want to astonish myself! I was a British migrant and have lived in Australia for most of my adult life. Born under Scorpio, I appear very even tempered to most people. But I know there is a curiosity and an unconformity, a challenging of the 'rules' in my make-up, that very few people are aware of.

I have a deep concern for the Australian environment which, as a walker and birdwatcher, I see being increasingly degraded. I worry about the current active promotion of tourism, for I envisage that this will have a devastating effect on wild and remote places. My interests range over classical music, opera and jazz; design such as low-energy housing, townscapes and furniture; films and theatre that relate to today's problems; I like to work with my hands and my home reflects this pleasure; dancing, for me, is a release of energy in an uptight world; and laughing with and caring for someone. In my present life I am making lots of wonderful memories, but we all need someone to share them with. So if anyone would like to write, I'd love to share your thoughts too.

**Pat Bradley**  
6 Eldon Pl  
LYONS 2606.

**Dear Grass Roots Family,**

We are on the verge of leaving our little cottage near Hobart which we built on the side of a hill above an extensive panorama of sea, islands, peninsulas and mountains. We offer this advice to anyone buying land: don't buy for a view if it means sacrificing the usefulness of the land.

We have also come to the conclusion that it's not much fun living separately, away from other caring people. We would like to try an alternative to the isolation which is brought about by the nuclear family, which we feel is an unnatural way for social beings to live. We are looking to settle within three to four hours from Brisbane in early 1988 and are interested in a community minded or COMMUNAL type SITUATION. We've got some accommodation to tide us over until we find what we're looking for, but would like to hear from people with ideas that may help. All letters will be answered. We wish peace and contentment to you all.

**Margy, Keith and Alex Watson**  
64 Agnes St  
BRISBANE 4110.

**Hello GR Friends,**

I, My husband and 17 month young daughter are interstaters, now living in Victoria due to my husband's work. We are all feeling a little lonely and are INTERESTED IN MEETING OTHERS with a healthy attitude to life within visiting distance of the below address. Our usual abode is on the central coast of NSW and apart from missing family, friends and nearby surf, I also miss my own garden, although we are managing to organise an interesting and appetising veggie/herb garden here. We have previously been fortunate enough to experience an 'alternate' lifestyle of organic veggie garden and orchard, chooks and ducks, muscles where there were none, lungs filled with fresh air and above all a harmonious atmosphere with our environment, which we are looking forward to again in the future. I look forward to any replies.

**Karen Birch**  
4 Crown Rd  
BONBEACH 3196.

**Dear GR Readers,**

I would very much like to hear from people living within a few hours of Melbourne who are living in ALTERNATIVE ENERGY HOMES, with a view to perhaps a short visit to gain valuable information. We are seriously considering a little self-sufficiency on a small piece of land in the country. We are currently living and working in Melbourne but have lost all our enthusiasm for city living.

**Dan Williams**  
2/1 Greig Crt  
ELWOOD 3184.

**Dear GR Readers,**

I have found a product called 'Orange Magic' is the best HEAD LICE TREATMENT closest to nature I have come across. Emerald Forest makes it and most Soap Box shops stock it in North Queensland, but I'd never seen it before we came up here.

Happiness and health to you all.

**Rowena Mahe**  
6 Ann St  
MALANDA 4885.

**Dear GR Readers,**

I am very interested in growing plants the organic way, but seem to be deluged by all manner of PESTS AND DISEASES. I don't want to resort to using herbicides, so I would really appreciate any tips/recipes/companion planting ideas that deal with any pests and diseases of plants (especially for slugs and snails which are mutilating my strawberries). Looking forward to your replies.

**Eileen Korenstra**  
2 South Cres  
West Heidelberg 3081.

**Dear GR,**

We (Glenn, myself, Dustin 2½, Aaron 10 months) found your great magazine two years ago and were amazed at how many people were achieving what we had dreamed about. We have just moved to the Gold Coast and intend to stay here for a year before travelling around Australia. Would love to hear from GR minded folk in the area with a view to DISCUSSIONS that revolve around topics other than babies and shopping. I am interested in natural health, nutrition and handicrafts. I'd like to find a supply of ORGANICALLY-GROWN VEGIES if someone can help. Looking forward to the next issue.

**Susan Schell**  
Treasure Island Caravan Park  
LABRADOR 4215.

**Dear Megg,**

I noticed in an article I'd sent to you earlier (on AGROFORESTRY) that I had the arrows showing prevailing winds across a windbreak going the wrong way:

1. Three-tier system of windbreak, I had the arrows going thus



whereas the true effectiveness of such a layout comes when the wind is forced up from the low shrubs over the taller ones. i.e.



My mistake! Hope no one noticed! Well, actually, it would be nice if someone using the information noticed as we'd then know the article was of value to the readers. Anyway, I do apologise.

**Irene Maxwell**  
WOODEND 3442.



# Feedback Link-Up Feedback

## Dear GR Readers,

Unfortunately my wish for acres of fruit trees is still a future dream yet. I am content to grow several varieties on my suburban block — pawpaw, peach, orange, lemon, mulberry (white), mandarin, lychee, macadamia — as well as a small veggie garden, soon to be enlarged. I prefer to stay away from chemical pesticides (as we all do) — my problem is fruit fly and cabbage and cauliflower grubs. I read an article in an early *Grass Roots* magazine for a natural FRUIT FLY REPELLENT which is hung in tins from the tree, but now can't find the article. If there is anyone who knows the recipe for this and anything for CAULIFLOWER BUGS it would be much appreciated. I have had bumper crops from my little patch and find it such a shame to see so much spoilt. Hope all fellow GRs have a prosperous 1988. Best of luck to you all from a suburban GR.

**T Walleit  
9 Galvin St  
LAWNTON 4501.**

## Dear Folks,

I would like to know how to do CRYPTIC CROSSWORD puzzles and messages. If anyone can help me who knows how to do them please write to me.

**Mary Connelly  
103/194A Hume St  
TOOWOOMBA 4350.**

## Dearest Grassroots Folk,

Jeremy 4, Lucy 3 and myself are planning another trip up north. We broke away from suburbia for three lovely months at the beginning of last year and made it all the way up to Brisbane, but got lonely for friends and family and found ourselves looking forward to coming back to Melbourne. Now the TRAVELLING itch has come back and I'd like to leave soon and go even further. So if there are any other single parents (with their own car) who would like to share the journey with us, please get in contact as soon as possible, or if there are any GR folk that we could visit with on our way we'd love to hear from you. I sing and play a bit of guitar. I'm an easygoing simple Cancerian, smoker and occasional drinker with lots to learn about living a healthy and peaceful lifestyle.

**Mandy Taylor  
C/- 111 Best St  
NORTH FITZROY 3068.**

## Dear GR Readers,

I think the Feedback section is wonderful, full of ideas and people wanting to help one another. I enjoy living in the country and like such pursuits as Sunday markets, travelling, and camping or visiting op-shops or sitting at home having a quiet read. As I am a single mum with two little girls I would like to CORRESPOND with other single mums to swap ideas.

**Leanne Drowley  
115 Wentworth Rd  
WONTHAGGI 3995.**

## Dear Megg and David,

Thank you so much for publishing my request for information on keeping PINE CONES OPEN. I have received 4 replies and have answered 2. One I can't, because Erwin and Gertrude did not include surname or address — only postmark of Tuena NSW.

Another lady from Bankstown was kind enough to even send me a photo print. I put her letter away so carefully with photo so I could return same, that I can't find it. I've even emptied out the 44 gallon drum I put small scrap paper in (for paper collection) in case I'd accidentally put in same. I know I have a cheek but could you please print this fact, as I'm afraid she will think me very rude and ungrateful.

3 replies said that as long as pine cones were open before they fell from tree they should stay open. Erwin and Gertrude said to put in oven for a short time. I have since bought a small American craft book and it says to place them on a foil lined biscuit tray and place in a 200° oven for a few minutes. This is to remove pitch, gives a nice gloss, dries them out and helps to open up the petals. They also recommend baking acorns and pods to remove worms and insects.

I enjoyed the 'Almost Nothing Christmas' and 'Little or no Cost Gifts to Make' in Issue 63. I worked for 3 years in the NT doing Rural Health Nursing amongst the Aborigines and a couple of years in New Guinea doing Village Clinics 3 days a week. We whites in Australia place too much value on possessions, expensive homes etc and have lost the knack of enjoying simple pleasures. Once again thank you for a wonderful magazine.

**Val Langdon  
1100 New Cleveland Rd  
GUMDALE 4154.**

## Dear Megg,

During 1986 I started publishing (for want of a better word) a FAMILY MAGAZINE. My father was the eldest of seven, there are 15 in my generation and between us we have 28 children, so I was assured of a reasonable circulation. There has been tremendous support from the family for it and we've found several long-lost cousins, have 'adopted' longterm family friends. It's hard work (as you know) but very rewarding. Maybe some of the readers would like to draw their families together in the same way. It was certainly a tremendous bond for us all during the time of grieving after my father's death last year.

**Noela Dolheguy  
113 Waratah St  
KIRRAWEE 2232.**

## Dear Readers,

Would anyone know the name of the supplier or manufacturer of small milking SEPARATORS and BUTTER CHURNS in Queensland. I do not seem to be able to get any leads on this.

I always buy *Grass Roots* and then hand it on to my son who lives in the bush. He is in the process of building a new house and is going over to solar power completely. Hoping to hear from anyone who can help.

**H M Nugent  
18 Melville St  
MARYBOROUGH 4650.**

## Dear Sir/Madam,

As a point of interest for further consideration: The LITTLE MOTORS one scrounges from S/H stores and/or the tips, could be used for many a purpose I guess. As I'm not very electrical or mechanical minded, I would appreciate some info on what they are good for and how to apply same (e.g. to hand mills of all kinds, even bean slicers). No doubt they could be used to drive pumps for water (and hydro schemes), fountains and tank to house applications, running tools for dad out in the workshop and the like — sorry I'm not cluey enough to work out the dynamics, maybe someone else could enlighten us ignorants?

Would anyone know where I can get any HAND-OPERATED all metal MILLS, either new or second hand, for processing meat, fruit and vegetables? i.e. mincers, slicers, shredders, shellers, fruit stoners, juicers, and so on. Thank you for your time and help.

**Barak Marschner  
6 Hutchinson St  
PT PIRIE 5540.**

## Dear Grass Roots Friends,

Hi folks! Looking forward to reading next issue over the holidays. For last Christmas Day I put my feet up after dinner and thoroughly enjoyed reading each page. Also gave my sister (a suburbanite) an issue for Christmas.

Re GR 63, Megg's Gumnut Gossip about Iriss Quigley — must check back on GR 25 and follow through as I purchased a collection of early copies (that a reader had advertised for sale in the Grassifieds) — including GR 1. I'm really pleased, and whenever we have some free time I plan to catch up — hopefully in New Year, as we are fully occupied during fruit season.

Back to Iriss — what an amazing person she must be, 80 years young! May Iriss continue with the full and active life and with this letter goes our best wishes for her striving to be fit by Christmas.

We purchased our property from a gentleman who lived to almost 96, his father to 104. We attended his 100th birthday party — a really wonderful get together of country folk. I said to him that it was the first time I had kissed a century!

**Iris & Gordon Glen Garrick  
'Glen Garrick Farm'  
1002 Old Northern Rd  
GLENORIE 2157.**

## Dear Readers,

I am keenly interested in finding a new or used family-sized, hand operated, steel plate, flour (grain) mill. The reason I insist on a steel plate one is that I will be grinding a variety of 'beans' as well (soya, split pea, etc) and I hear their oils are not compatible with stone. I hope you can help me. I have looked in some back issues of *Grass Roots* and have not seen any articles on the subject. I have also looked for any advertisements, also to no avail. Please let me know where I start looking in Australia. I'd also like to hear from anyone using the usual stone plate one and grinding beans.

**Carl W. Turney  
PO Box 166  
BUNBURY 6230.**

# Feedback Link-Up Feedback

**Dear Megg,**

I have seen a PIONEER CHAIR (a rough squatter-type chair) made from forked branches of a tree and my friend is keen to try his hand at making one. Would anyone have a design or know of anyone who may have a pattern. Many thanks.

**W Burgess  
MS 571  
MURGON 4605.**

**Dear Kath and Grass Roots,**

Our Botanic Gardens staff always look forward to receiving and sharing your *Grass Roots* magazine.

Visitors to Brisbane may be interested to know and come and inspect our Botanic Gardens (on the slopes of Mt. Coot-tha) and all it has to offer GR people. As we are primarily a teaching and learning institution we endeavour to grow as wide and varied a range of exotic and native plants (approximately 14,000 species) as possible, with a particular emphasis on economic crops and plants in our extensive Teaching Gardens. Our Fruit Tree Garden now contains some 80 species and cultivated varieties from tropical to temperate fruiting trees and vines.

The Botanic Gardens Library (open 9-4.30 pm Monday to Friday and 9.30-11.30 am on Saturday) is well stocked with GR related titles. For example we have just produced a list of the 58 herb book titles available on loan to Brisbane ratepayers or for reference reading for people out of town. Botanic Gardens are unable to sell seeds and cuttings to the public, however to increase our collections of plants we do 'swap' with interested individuals and organisations for our mutual benefit.

Another 'Garden' within the Botanic Gardens that may be of interest to *Grass Roots* readers is the Herb and Fragrant Garden. Here extensive collections of plants are being grown and a sight and smell tour is most rewarding! Best wishes with the production of your most worthwhile publication.

**R. D. McKinnon  
Curator Botanic Gardens  
BRISBANE 4001.**

**Dear Grass Roots People,**

I am writing in desperation in the hope someone will be able to help me. My son who had hidden allergies unbeknown to us worked on fibreglass. He has since developed many food allergies (also ALLERGIC TO PETROCHEMICALS). His main allergies are to wheat, maize, rye, yeast, cane sugar, potato. I would like to know if anyone can help with alternative foods and so increase his food intake which is very limited now.

I would be most grateful for any suggestions.

**Margaret Carter  
148 Porteus Drive  
SEVEN HILLS 4170.**

**Hello Everyone,**

Andy and I moved onto our vacant 40 acre block one year ago. We now have a shed to live in — one day we'll build a house with stone — power connected, and some internal fencing has been done. We have 8 pet sheep, orphans and spinners, and recently acquired our breeding flock of 40 and a lovely ram. The vegie patch is started and so far has proved both sheep and goat proof. In this last year we have achieved so much. It's so much easier to look back now, we had it pretty rough at times too. We have set some goals for this year: approval by council of our house plans, eating our own produce and hopefully getting pregnant. I miscarried a couple of years ago and now I'm having trouble becoming pregnant. Does anyone have any ideas or do we just keep on keeping on?

I wonder if someone in NSW would write to me please? We have ideas of moving there one day — to a warm day, cold night area with a high rainfall. I don't know if this exists or if it's only utopia. I would appreciate any information.

I want to say something to the people who, for whatever reason, object to the use of CHEMICALS and DRUGS on their animals. Dogs and cats are given worming treatment — as are people. Small people are vaccinated against polio etc. Animals can't tell you what's wrong and they do need care and attention. A drench is the safest and most effective way to get rid of worms; there are also available fly-strike treatments. Please look after your animals.

I would also like to thank Dave Closs (GR63) very much for his idea on possum control in fruit trees. Last year every single nectarine had a bite taken out — the night before they were to be picked. Hi Dave! I hope you're still upright. Peace to all.

**Lacey & Andy  
PO Box 207  
MEADOWS 5201.**

**Dear Readers,**

I too have successfully used iodine to burn out RINGWORM on my children and my parents did the same. Then you use, if I remember correctly, Rexona ointment to heal the burns.

**Mabel Round  
8 Goodwin St  
WEST RYDE 2114.**

**Dear Megg, David & Staff,**

I would like to know if anyone knows where I can obtain the good old healing ointment BATES SALVE in Australia or NZ. I've tried several pharmacies in Brisbane and nobody seems to have heard of it.

Also if people would like to know about a completely ORGANIC FUEL SUPPLEMENT they can send a self-addressed stamped envelope to me and I will be happy to tell them all about it. It can be used in cars, boats, planes, mowers — indeed anything which runs on petrol or diesel.



**Shirley Svensson  
PO Box 717  
WOODRIDGE 4114.**

**Dear GR,**

To all you organisers of communities around Australia, how about compiling a type of 'WHO'S WHO' OF COMMUNES, so intending new alternatives like myself can seek and find you all out and visit for mutual appraisal in all honesty of purpose. Any lists compiled I would be grateful to receive.

**Explorer  
PO Box 591  
MONA VALE 2104  
Ph: 02-451-8797.**

**Dear Megg and David,**

I was very interested in a film I saw recently about 'conductive' education for spastic children in Hungary. It looked like a marvellous approach. It reminded me of the time I worked intensively with a youngster who was brain-damaged in an auto accident. Most lie in hospitals in a coma, but this one was taken home, and worked on by parents and volunteers. His progress was terrific, and he was back to near normal within a year. Seems like Very Intensive Care is often the answer. I have known of the occasional kiddie that it hasn't worked on, so one has to be realistic. My interest is with CHILDREN who have EMOTIONAL AND BEHAVIOURAL PROBLEMS, and I'd like to see an alternative education for them — something after the style of the 'Youth Challenge' programs which work so well in the US. I have 3 ha of land near Atherton, and would see this as a possible site for such a school if the capital for buildings etc could be raised. I'd be interested in hearing from anyone working within such a specialised area, for their opinions.

**Geoff O'Callaghan  
BATCHELOR 5791.**

**Dear Readers,**

Does anyone know the whereabouts of LAUREEN WARD? Her last known address to me was C/- Boolarra Post Office, Boolarra Victoria. That was over 2 years ago. I've been trying, unsuccessfully, to contact her all this time. If you know Laureen please show her this letter, or ask her to write to me. I miss her.

**Caroline Stone  
20 Camfield Road  
GREENMOUNT 6056.**

**Dear Megg and David,**

As you can see from the address, we have moved out of town and now have 3½ ac. and we are making it, eventually, into a large garden. We have put in, by hand, an underground irrigation system, so that we have taps everywhere. It's funny, but out here, we have more friends and know more people, than in the towns where we lived. It is 40 km to the nearest supermarket, but one gets used to that, but better not forget anything, there is a week before the next shopping trip.

We don't own farm animals as such, but we provide water for birds (in safe pole positions) and it is a great pleasure to sit and watch all the different ones that come for a visit. Our real lives are being ruled by our cat, a treated siamese male. Well, that was until a couple of weeks ago, when we were given a small, white female kitten. Unfortunately the poor thing is stone deaf, so we have to learn to be very careful with where we walk and the doors we close, but I guess we will learn to get on with these small handicaps, so we can live in harmony with each other.

**S. Steenstrup  
MS 279  
GUNALDA 4570.**



# Feedback Link-Up Feedback

**Dear GR People,**

Does anyone else COLLECT SAYINGS? If so, would you like to write and exchange some of them? I started a while back and would love to share them with others. Best wishes to all.

**Jim Lanham**

**C/- PO**

**PACIFIC PALMS 2428.**

**Dear Megg,**

During this holiday period, I had the opportunity to read through GR 63 and GR 64, and I would like to make some comments on some of the Feedback Link-up enquiries.

Re Grass Roots No 63:

To T. & S. Jacobson, Quakers Hill, NSW, on the commercial production of BANANAS — detailed, practical information is available from the district advisory officers of the Department of Agriculture, NSW and the Department of Primary Industries, Queensland.

To Jo Burns, Northland, NZ — the ROSELLA is an annual plant that originated in the tropics. It is closely related to the okra and the hibiscus. The plant grows 1.5 to 2 m high, with many short stemmed, yellow flowers. About 3 weeks after the start of flowering the first fruit is ready for picking. The large, reddish calyces surrounding the seed pods are used for food. Before use, the small seed pods have to be separated. Then the calyces may be made into an excellent reddish sauce (similar to cranberry sauce), or jam or jelly. When making jelly, the seedpods may be left in the calyces during cooking (I am sorry not having any detailed recipes).

To C. Husk, Bendoc, Vic — late spring FROSTS during flowering of fruit trees may cause great damage in blossoms and in developing fruit — and such frosts are more frequent in highlands, such as the area around Bendoc. There are no simple methods to ensure that no frost damage will occur, but the following suggestions could help:

— plant fruit trees, or other plants sensitive to frost, on the slope of a hillside, so the cold and frosty air, which is heavier than warm air, will move down towards the bottom of the slope.

— under the trees weeds and grass should be pulled up, or kept short with a mower,

— if the soil is cultivated under the trees, it should be consolidated by rolling and kept moist.

These preventative measures will help to lessen the frost by 1-2 degrees, but in case of frosts of -8 °C, stronger measures would be needed, such as mixing the warmer upper layers of air into the colder layer at ground level, by windmachines, by having burners placed in the orchard and lighting them before dawn or by covering individual trees. By the way, a short, informative 'Agnote' (information sheet), *Frost — its nature and control*, is available from the Dept. of Agriculture and Rural Affairs, Melbourne.

To B. Mustchin, Bassendean, WA — TAGASASTE has many advocates in Australia and New Zealand (see *Tree Crops-84*, *Growing Up*, Nat. Resources and Conservation League, Melbourne 1985 and *Agroforestry in Australia and New Zealand*, R. Read & G. Wilson, Goddard and Dobson, Box Hill, 1985). However, I would quiz further your PhD friend on the basis of his criticism.

To R. Kandel, Seaford, Vic — GLYPHOSATE (Roundup) was developed by Monsanto in USA and to satisfy the registration authorities they had to submit a statement on the effect of the material on the environment. This information and additional experience obtained with glyphosate should be available from Monsanto in Australia, or from the Department of Agriculture and Rural Affairs.

Re Grass Roots No 64:

To T. R. Adcock, Northcote, Vic — PEACH and NECTARINE trees should bear fruit once they are 3-4 years of age, so if there is no fruit after plentiful flowers, this could be caused by:

— a genetic problem (seedling trees may be poor bearers and, in any case, usually start to bear later than budded ones).

— lack of water and/or nutrients available when the fruit is setting (after blossoming) and developing. To provide the nutrient needs of peaches and nectarines, organic manures or inorganic fertilisers may be used. Actual requirements depend on the nutrients available in the soil, but in general a mature tree would need yearly about 4 kg of blood and bone, or 8 kg of poultry manure, or 2 kg of mixed fertiliser (with a P:N:K ratio of 9:4:5). These are applied during autumn and because of the high nitrogen needs of peaches and nectarines, an additional 1 kg of sulphate of ammonia, or calcium ammonium nitrate is given in the spring.

Leaf curl is usually not a serious problem, but a severe infection could weaken the tree and reduce fruit production. The 'Bordeaux mixture'

treatment is quite safe as, for the control of leaf curl, there is no need to spray it during the growing season at all. Control can only be achieved if this spray is applied when the buds start to swell (about middle of August in southern Victoria). The spray should be used copiously, to 'run off' stage.

To M. Seng, Charters Towers, Qld — for information on BEE-KEEPING, contact the district office of the Department of Primary Industries.

I wish you all at the Grass Roots office a very happy and prosperous New Year, with kind regards.

**John Kenez**

**5 Rolls Court**

**GLEN WAVERLEY 3150.**

**Dear GR,**

I was wondering if any of your readers could supply me with information on building an OCTAGONAL LOG HOME. Thank you for your help.

**J. R. Patrick**

**C/- 156 Prince Edward Pde**

**SCARBOROUGH 4020.**

**Dear GR people,**

Hi, my name is Fiona (30). Recently, my husband John (30) and I and our two daughters, Emma (3) and Rachel (1 year) packed up from Braidwood NSW to move down to Southport in southern Tasmania to live. We will be buying my brother's old house, as soon as we sell our land in Braidwood. We plan to one day renovate the house and to put in a plant nursery. John has work with my brother who has a landscape business and farm. He found it hard to find full-time employment in NSW so it would have been a long time to afford to live on the land to build the stone cottage we had plans for. Then the chance came for us to move to Tassie, where I was lucky to grow up, and I am looking forward to seeing our girls grow up here too. It's a lovely part of the world, with lots of trees and mountains with caves, and a thermal pool (28 °C all year round) nearby. Also it is very close to the sea and it isn't as cold as one would imagine. John is originally from Finland, and he finds the climate quite bearable and loves living here as much as I do. We would like to make CONTACT with other GR PEOPLE in the area, or anyone who would care to write to us, our hobbies include gardening, acoustic guitar, bush walking, caving, swimming and fishing, as well as just being in touch with nature.

**Fiona and John Korhonen**

**Main Rd**

**SOUTHPORT 7117.**

**Dear GR,**

A rather straightforward request for help and advice — yet another one! Helen and I have started running our own little farm near Violet Town and have learned more in the last 18 months than we could have believed possible. We have 110 non-irrigated acres with a lovely creek frontage, and run Merino ewes and Angora goats. And therein lies our question.

During the summer season the ewes and lambs are fed on dry pastures and are given UREA BLOCKS (supplied by the local stock and station agents) which also contain molasses and vitamin supplements. Can, indeed should, we also feed these to our ANGORA GOATS? We are aware that urea blocks have inherent problems where individuals consume too much or when the blocks are allowed to get wet, but since we take reasonable precautions and have noted that our sheep seem to do well with the blocks, we keep wondering whether our goats are missing out. In anticipation of an answer, thanks.

**Geoff**

**'Honeysuckle Creek'**

**TAMLEUGH WEST 3613.**

**Dear Megg,**

I would like to thank you for the 'CONTACTS' column. It is the only time I have advertised in such a way and have found it very worthwhile although sometimes difficult to know exactly how to handle a situation. A few mistakes were made, I now know — still learning at 36. I received about 2 dozen letters from all over Australia, which surprised me and I have now a few new friends, thanks to Grass Roots.

Just one problem, could you possibly print the following message by way of an apology to a contact whom I was unable to contact in time, as I do not wish him to think I refused to answer. 'NEIL, your letter arrived too late — sorry'.

**Julie**

**C/- Box 764**

**SHEPPARTON 3630.**

# Feedback Link-Up Feedback

## Dear GR Readers,

In response to people who write in having trouble growing things through LACK OF WATER, plants like figs and beetroot are hardy and salt tolerant. Also, most people do not know that fats and oils are mostly, albeit slowly, water soluble. If people wash first themselves and then their clothes in lukewarm water, with only the tiniest amount of soap, i.e. to remove stains, the water will not be full of salt (from detergents) and soap residues which affect root systems of plants. The water is then safer for plants. Thanks for a lovely magazine.

**Peter Calistro**  
C/- PO

**DIMBOOLA 3414.**

## Dear Megg and David,

Since working at the Eukey Solar Complex near Stanthorpe for some months in 1984, I have been an avid reader of your great magazine. I have read with relish and a little envy of the many trials and tribulations, small triumphs and large victories of establishing one's own little bit of this beautiful land. Never having had a home of my own I heard myself repeating 'I must try that when I get my place', never really thinking I would. I brought up my two sons alone and was always sad that I could never give them a permanent home, always moving to find work.

However, two years ago I very luckily found a 1 acre miner's homestead lease at the sapphire fields in central Qld that was for sale for \$750. It was an untouched bush block with lovely tall trees next to a 'seasonal' creek. I bought a house for removal in Emerald for \$2500 and moved it out with great difficulty — then of course came the hard work and small miracles. Greatest small miracle of course was being able to put down a bore only 35 feet and finding lovely clear water.

Anyhow, here I am, 2 years later with the home I always dreamed of giving my boys, but too late — they have both grown now and gone their own way, although they do come home to visit their mum from time to time. If any GR readers are travelling through this way, I have plenty of room for a caravan or bus if they care to spend some time fossicking for sapphires. Who knows, they may find the big one! I find there's plenty of chance to keep fit and indulge in a variety of interests, including painting, poetry, studying the animals and birds, and general bushcraft. Anyone interested, please feel very welcome to write.

By the way, for any young fit people wishing to earn enough money to buy their piece of country, whilst at the same time live a free and easy lifestyle, there is plenty of OPPORTUNITY out here at the gem fields. The work is hard and the summer hot, but it can be very rewarding in many ways. You don't have to buy land here, camping on the fields is permitted — all you need is a miner's right and the equipment. There are plenty of old hands up here to help you get started.

Anyway, hope this finds you all in good health for 1988, and congratulations Megg and David on a great read.

**Lee Kempson**  
PO Box 657  
**EMERALD 4720.**

## Dear GR Readers,

Can someone help me please? Are there any REBIRTHING practitioners in South Australia? Peace to you all.

**Keith Lefort**  
3 David Street  
**KADINA 5554.**

## Dear Grass Roots,

Thanks for printing my query about Tagasaste, to which I received many helpful replies. I would now like to know if anyone can tell me how to make MISO and TEMPEH at home.

I would also like to purchase a copy of *Natural Beauty* by Lorna Horrocks (Angus and Robertson 1980, now out of print) from anyone who has one and doesn't want it. As a matter of interest Lorna says BORAX is a no-no, possibly causing poisoning when applied to broken skin. Perhaps readers who try your cosmetics recipes (GR 64) should be aware of this.

Here is my own all-in-one SKIN TREATMENT for anyone interested: make a nice paste of honey, yoghurt, oatmeal and ground almonds in roughly equal proportions; this can be rubbed on the face as a cleanser, or allowed to dry as a facepack which seems to both moisturise and tighten. No time limit on the facepack — I once tried leaving it on all night which was okay except that I got stuck to my pillow! I follow it with a rinse of cider vinegar diluted one part to two parts water.

**Bev Mustchin**  
1 Anzac Tce  
**BASSENDEN 6054.**

## Dear Megg,

I am a receptionist for an osteopath and natural therapist and have been involved in the natural side of healing and living for the past 15 years now, but have only just discovered your wonderful magazine. Though I live in country suburbia I have grown my own vegies and chooks and have a house cow on agistment. I have bottled and preserved all the fruit that is in abundance down here at this time of the year that I can beg, borrow, or buy, didn't realise so much more can be achieved. At present I have the promise of 4 massive FIG TREE CROPS and am desperately trying to find ways of drying and using them.

Since an old issue (14) found its way into our waiting room I have been able to scrounge 4 issues of *Grass Roots* and can't put them down and am very anxious for the back issues to come and more current issues to be brought out. My ultimate dream is to own a few acres and become semi self-sufficient in time, but for the moment I have to be the breadwinner for a family of 4. My husband has had a car accident 4 years ago and is semi invalid and had a nervous breakdown on top of that, so with two boys, 12 and 8, life is very busy. I am very thankful my boys are very strong and healthy. They are very close to nature, loving anything to do with outside and open spaces.

For now, thank you and peace and healthy living to you all.

**Maree**  
C/- Hope  
11 Meninya St  
**MOAMA 2731.**

## Dear GR People,

I am building a bathroom as my next project and would like to incorporate a SPA BUILT FROM ROCK. I am interested in hearing from anyone who may be able to help me with design and construction methods. Much appreciated for any replies.

**Peter Yaxley**  
200 Gellibrand Drive  
**SANDFORD 7020.**

## Dear Friends,

How glad I am that our local library has all the back numbers of our wonderful magazine, as they never date and each one has something particularly interesting in it.

I would be interested to read in the next copy comments on what other readers feel has been achieved over this last 'YEAR OF SHELTER FOR THE HOMELESS'. I am lucky and have a comfy home, for which I am thankful. Many struggle to provide basic shelter (I find it significant that the word 'shelter' is used rather than 'house', as this suggests striving for something basic rather than an unrealistic goal).

I would like to see over the next few issues a drawing together of great SHELTER IDEAS which readers may have. Each reader will have different building possibilities due to natural materials to hand. Although the only building I have helped with has been of a conventional sort, I have nevertheless a lot of ideas (some less crazy than others) which someone else could build on (excuse the pun). Often kind landowners write in offering a place to others but we rarely hear the outcome (except when trouble eventuates). How about something from them too? Now, let's see how many feasible ways of building there are which genuinely cost little, provide a weathertight shelter in a moderate climate, and most important give a sense of 'home' and belonging to folk who otherwise would be homeless and discouraged.

**Mary Allen Tournier**  
C/- PO  
**DUNOON 2480.**

## Dear Megg,

I was most interested in the article 'Have a Go Now' by Gwen Hall of Aitkenvale, Qld and how true that title is: I was happy to read that they are going to RETIRE AT 55 YEARS, that's ideal, and I speak from my own experiences. My husband and I bought a beautiful piece of Queensland bush and worked for 5 years to make it even more beautiful, but alas he died suddenly last year aged 61, never having enjoyed the fruits of his labours. If he had retired at 55 (which he often wished he had allowed for) he would have had that time, and for me the sad thing is that by leaving it too late there were so many things that he had to do and experience, that he never got to do and see; so take it from me, don't wait till later, you never know what's around the corner. I have the joy of our little heaven of course, but tinged with sadness and loneliness.

**P.G. van Wyk**  
PO Box 652  
**YEPPON 4703.**



# Feedback Link-Up Feedback

## Dear Grass Roots People,

As an 'oldie', who grew up on a small farm, I realise the importance of passing on to the young the knowledge of the past, so that they can in turn enhance our heritage. Congratulations and best wishes for your continued success.

**M. V. Malan**  
10 Topatig St  
CLEVELAND 4163.

## Dear Editor,

I saw in GR 64 a description of the butchering of poultry; and it seemed to me to be the next step to ask how our ancestors did without ball pens and used GOOSE QUILL PENS.

I found a description in vol. 23 of *Encyclopedia Americana* on page 95, under 'Quill Pen'.

Excerpted: 'Quills are obtained from the wings of freshly slaughtered geese in the late fall and winter when the birds are matured and fattened. At this stage, the quills are large and strong. Quills are never taken from live geese.

Quills to be used as pens are first cleaned of any fatty matter that would prevent the ink from flowing smoothly. Some quill makers cure a quill by first burying it in hot sand until completely dry, and then dipping in a solution of either boiling alum or dilute nitric acid. A thick short knife (called a penknife) is used by the pen maker to cut and slit the end of the quill to form the nib . . .

What other information I have is that alum was a naturally occurring mineral. I'd suspect the home cleaner of fat would be leached from wood ashes, which in a pinch will do a good job as a scouring powder — contains charcoal, silica and potassium carbonate as the alkali to clear the fat. Alum you could get from a pharmacist or hardware store.

I then looked up a book by Joyce Irene Whalley, which gives the history of writing instruments, and was published in 1975 — it is detailed with a large bibliography.

It seems that quill cutting was a speciality; that the way a quill was cut varied with the style of writing employed — that various types of ink were manufactured and sold (not any ordinary ink today would do). If there is someone in the country who is interested in calligraphy, they might follow my beginning research and teach some country school children to do without ball pens and use quill pens.

Item two — tracking wild swarms of bees. Hector St. John de Crevecoeur in *Letters From An American Farmer* says that bees can be tracked to their hives by burning beeswax, which will emit an odour. Near the burning beeswax he drops some honey on a flat stone and surrounds the spot of honey with vermilion (I suppose any dye will do). The bees coming to the honey, will coat themselves in the dye. With a compass, one can find the direction the laden bee will take, and by waiting until the first dye-coated bee comes back for a new load, one can estimate the distance to his hive.

Perhaps some beekeeper could measure off a distance from his own domestic hive, and see whether the trick works, and how many minutes equals how many yards.

Item 3 — tracker dogs. Crevecoeur also tells a story of a lost child being located by a dog, who upon sniffing the child's clothing, then picks up the scent by going in a circle round the father's house. I've seen stories of lost children in Australian newspapers and no dogs were used to find them. How do you train a dog to do that?

**Leonard Levine**  
8/483 St Kilda St  
ELWOOD 3184.

## Dear David and Megg,

I would like to THANK YOU for all the years of effort you have done, to give us such a worthwhile library of information. I often refer to my *Grass Roots* and enjoy the re-reading.

I am still busy about my small acres, with goats, hens, duck, garden, weeds and one son at home. Also spinning group, scripture lessons, a life as busy in 'retirement' as before. I do not call it self-sufficiency — I reject that name because no person is sufficient unto themselves — we all need other people and they need us. But I can find a contentment in country living — not as cheap as many seem to think it, but a contentment with what one has and an acceptance of what one has not. I was always a fighter against injustice when young, but that can be very unsettling in excess, and with age I think, comes a peace and feeling that if you have done the best you could (or nearly so), then let's be serene people. Thank you most sincerely.

**Peggy Parrish**  
MORUYA 2537.

## Dear People,

A friend and I are travelling to the south of WA in February, possibly to settle there and buy into share land. So we'd love to make contact with GR people in the region. Tibor will be working but I'd be INTERESTED IN VISITING people on land, where people are interested in homebirth and alternative education.

Of ourselves, we are into nature and jazz and seek to live gently on this earth, please feel free to write, best wishes.

**Leila & Tibor**  
PO Box 5948 M/C  
TOWNSVILLE 4810.

## Dear GR folks,

To those people who wrote with houses for sale, cures for my son's rash and Anne Wigmore diets, I'm sorry I haven't replied to you all yet. I have bought a house with half an acre so am very busy now. When I find your letters I'll reply.

I have read with interest the ALTERNATIVE LOOS (GR 64). I would like to know if WORMS would be any good in a SEPTIC TANK. I dispose of urine separately and, apart from when visitors call, the maximum number of flushes per day would be eight. I use only half the tank capacity which would be about 8 litres of water per flush. I live in a small rural suburb and the old 'thunderbox' is still intact but council regulations don't allow for its use and the neighbours may not approve of me disposing of it on my half acre with the assistance of worms only. I clean the septic pedestal with biodegradable products too. So could worms survive in the septic tank?

Anyone commencing gardening should read Jeff Hodges *Harvesting the Suburbs*. He's done all the thinking and trialing so you can bypass that and start tuning into the garden straight away. I'd be interested to hear from people using his Nurtural Gardening approach as I'm just starting out. I would love to see some larger, commercial farms use the principles he advocates.

Any Mackay area *Grass Roots* readers interested in talking to a like-minded person please write or call 541-338.

**Heather Cleary**  
C/- PO  
ETON 4741.

## Dear Kath and GR Friends,

Life is good. After four tiring days at work, I am looking forward to a few days of a different kind of employment — fencing my vegie garden/ and fruit trees, laying down some slabs around the front door of 'the barn', and patching up some holes in the wall — not on my own of course, I'm the tradesman's assistant!

It is blissful to get up in the mornings and look out over our peaceful domain, and drink in the relative silence, broken only by the birds calling and the wind shuffling through the she-oaks. The block looks very dry, but that is deceptive, as there is plenty of green feed under the taller dry grass. The sheep and horses are gaining weight. We are fencing off the 'home paddock' behind the barn, so that we can pen the horses in there for part of each day. They can graze it bare, then they will not be grazing all day every day. With their regular exercise sessions they should lose some of their excess fat.

There seems to be a lot more cooking to be done in the holiday season, but even without a stove we manage quite well. Amazing what you can achieve with a single gas burner, electric frypan and microwave oven! We had a big bonfire here the other night, with toasted marshmallows, baked potatoes and toast over the coals. No wonder I'm getting like the horses!



**C.C.**  
ALBANY 6330.

## Dear GR Readers,

Hi my name is Andrea and we (Tom, Sara 4 and Tim 7) are planning a TRIP AROUND AUSTRALIA in July to Nov. 88. We would love to hear from anyone who has done it, with or without children. Advising us on places not to miss, things to take (or not to take!) and things that went wrong. We'll also be towing a caravan with a 4WD Landcruiser. So please write — I've got lots of questions.

**Andrea Giles**  
Leslie St  
WOODFORD 4514.

# Retaining the Dream

It's obvious from the letters we receive here that many GR readers are looking for a patch of dream land. Happily many find it, the trouble is by the time they raise money for a deposit and meet regular interest payments they are left in a quandary as to how they can afford to move onto their utopia. The many expenses involved in setting up a property, regardless of size, necessitate a healthy cash flow — which leaves many new owners in a great dilemma. Should they spend X number of years in suburbia working their butts off to raise the money in as short a time as possible, or do they just up and go, trusting that providence will see them through? In the following pages four readers who have found their dream land write about the way they have gone about making it all happen — for better or for worse.

## A Caring, Sharing Way

by Murray & Wendy Flynn, Braidwood, NSW.

After endless treks into the southern New South Wales countryside and the discovery of areas we did not know existed, we were bordering on despair. Would our dream of being self-sufficient ever come true? It seemed that all the land we had seen was either out of our price range or not what we were looking for.

One Saturday we were again scanning the paper when one ad caught our eye: 120 acres, old house, Braidwood area. One phone call and then into the car to go and check it out. We arrived and it was love at first sight. The house was very run down. There were blackberry bushes higher than the house and an outhouse we never thought existed until we explored around the blackberries. The tussock grass was high and grew right up to the front and back verandahs. There was even a wombat living under the house.

The inside of the house was lined with old newspapers and hessian and had plenty of resident rats and mice. It also had two fireplaces and a little bit of old furniture. The house was actually two small places joined together and had no internal doors to go from one section of the house to the other. We decided it was livable and had plenty of potential. We went ahead, organised loans and finally reached settlement.

We were both still renting in Canberra and working, so weekends were the times spent working on the property. The first thing that crossed our minds was, 'Where do we start?' After much discussion we put our priority on making a fire break. Wendy's father and I used a large industrial lawn mower and mattock for tussocks and grass, while Wendy and her mother spent the time carting the endless tussocks to a pile for burning. Wendy did relieve me from the mattock for breaks. She has this form of removal of tussocks to a fine art! There is no stopping her. After all the effort we soon had a very large area cleared and looking like a beautiful lawn. The next task was the blackberries and with much reluctance we poisoned them and burnt them out. The next major project was a large chain wire fence around the house to contain our two large dogs, a Great Dane and an Irish Wolfhound. This was our first fencing project and with the help of Wendy's parents we finished up with a job well done. This was very good for the ego for further projects!

We were at this stage spending one in every two weekends at the farm but soon found this was starting to drag out to one

in every five. Not near enough time was spent on the property. It is not easy when you live away from your home in the country. You get caught up with the pace of the city and keep putting off farm projects in favour of a party in town. The crunch came when we went down for one of our rare visits, to find the house had been broken into and vandalised. A choice had to be made whether to sell the farm, which was not an option, or to go and live there.

Change can be hard when a person dwells on the pros and cons for too long. To us, having jobs in Canberra and the distance we had to travel worried us. We would have to allow two hours travelling due to weather and breakdown, which would mean early mornings and late evenings. The trip itself is usually one and a half hours. This decision was made easier due to one of our neighbours, Brian, working as a firefighter in Canberra. He's been commuting for some time. Our minds were made up and the move to the property went ahead.

The night before the first day's commuting was very anxious. Would I manage to get up in time, would I be too tired to drive and what about the weather conditions? We started commuting at the worst time of the year, in the first months of winter. The weather conditions still do slow us down. We have conditions from pea-soup fogs to snow, but the good days far outnumber the bad. It is a pleasure to see the beautiful sunrises on the way to work. This form of travel far outweighs the mundane trips I had to make to work in the city. The commuting gives Wendy and me plenty of time to talk, instead of coming home and turning on the television and not communicating with each other. When we arrive home at the farm it now takes real team effort. There are the dogs to feed, chooks to tend to and dinner and dishes to do. The days are now very full and extremely rewarding. Some people have said to me in the past, 'How can being away from the farm five days a week be rewarding?' It is, but in a very different way. Sure, we would both love to be on a farm full time but payments do have to be met, so at the end of each city working day it is a very real wind down going home to the farm. We leave one world behind which pays the bills and enter into another which is our life. We only have a few years of payments, so we can see light at the end of the tunnel. With all this we do find it rewarding, because we can see what we are working for in the future. This now, of course, leaves us with



two days a week to work on our property. This, some may say, is not really enough time but we feel we have found the solution for now and the future.

The plan came about one night while we were having a barbecue with our neighbours Cherokee and Brian. The four of us would have weekly get togethers for dinner on Friday and Saturday nights. This was fun and we all enjoyed the contact, but the nights went into the early hours and the mornings were spent summoning up the courage to get out of bed. In the course of the night the subject came up that we all did enjoy socialising but the weekends were being wasted by very little work being done on both places. A solution was found very quickly. What we would do from that point on would be all spend a day at one of our properties. The logic — eight hours are better than four and the more heads the more ideas. It was decided to start the very next morning.

The 'work programme' as we call it does have guidelines for smooth running. These guidelines are basic: we arrive at the property on the allotted day by 9 am and no later than 10 am, and finish at 4 pm. Finishing is flexible depending on the task at hand. If one couple misses a day, that's fine, but they owe the next day's work. This means that if Wendy and I can't go to Cherokee and Brian's place on our day, we have to go there the next of the working days. If we don't, then

Cherokee and Brian will not come to our property for their day until the day has been paid back. The only ones to lose would be us in the long run. It is also up to each couple to have the jobs on their property set out for the day's work. The programme is very fulfilling, as we still have the social interaction and at the same time work is being achieved. This makes even the hardest of jobs very pleasurable, and self motivation is easily obtained when there are tasks set out and people wanting to work. It is also a very good feeling to watch each other's places grow and dreams start to unfold. All this is really achieved by one very basic philosophy, caring and sharing which has been lost in this generation.

We now look back over the last two years with satisfaction about what we have achieved and how far we have come. We look into the future with enthusiasm. Our organic vegetable garden is now well on the way, the chooks are doing fine and we are in the throes of collecting equipment which we will need for working Clydesdales. The horses will come later. Our aims are to be as self-sufficient as possible by using the old methods of farming. This means putting what we take out of the ground back into it, e.g. companion planting our gardens and using as little mechanical machinery as possible. We now believe dreams can and do come true if you really believe in what you are doing and work for your goal.

## Try Before You Buy

by Kim Cochrane, Bendemeer, NSW.

After reading *Grass Roots* for 10 years, I figured it must be about time for me to write an article on how we got down to grass roots.

We first bought our 160 odd acres of bushland, set amid older established grazing land, about 4 years ago. Access was make your own 4WD track, there was no permanent water and power costs too prohibitive to consider. Not everybody's dream surely, but at the price it was ours.

Travelling to and from the property took up much of our time (about 5 hours each way) and so it was decided that we must move closer if anything was to be done properly. I applied for a job as housekeeper for 15 hours a week, at a property about 50 km from ours. At least now we could spend more time at the block while maintaining a roof over our heads. It also provided much practical experience in 'going country'. I would urge any inexperienced 'bushies' to do something similar — there are always many jobs advertised along the lines of housekeepers, cooks or handymen, in 'country' type papers (*The Land* in NSW, *Weekly Times*, Vic.). At least it gives you a chance to 'try before you buy'. We spent 2½ years on that property until we moved over here to our tent to begin building.

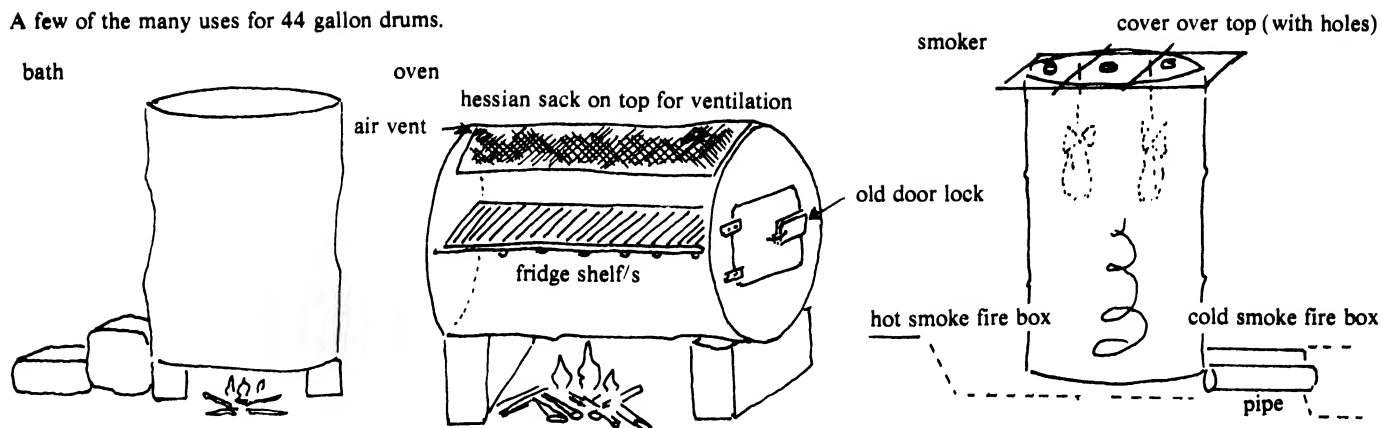
By that time we had enough wall up on our dam to hold water for stock and our needs. It has a concrete wall spanning between two rocky sides of a steep gully. Later on it will be built higher to hold back even more water. We are also fortunate to have a spring in another area which always fills however much water you take from it. Drinking water comes from a rainwater tank at the side of one of the sheds.

Adjacent to it is the tent, the area between being the 'beer garden', complete with fernery and fridge. Refrigeration is by two kero fridges, although only one is usually operating. The other is used mainly for vegetables, the door left opened at night to allow ventilation and cool air, and closed during the day. A word here about kero fridges — if you can't get it to stay alight it's usually because it's been standing around unused for a while and the liquids in the pipe need mixing together (they separate after settling). This can be accomplished by turning the fridge up and right over a few times, or taking it for a ride in the ute or trailer upside down for a short time.

Someone really ought to write a book on uses for 44 gallon drums; we have found them invaluable around the place. Apart from holding fuel of course, we use them for water storage, a smokehouse, bathtub and even the economy sized oven! Fortunately my partner can put ideas into practice. They may help someone and are not as yet patented!

The children love being submerged up to their chins in hot water (standing on a rock) and the visitors eye our bath off rather pessimistically until they try it. You should see their eyes nearly pop out when you stoke up the fire and start throwing the vegies in! Seriously though, it is a wonderful bath, 360° view, glass of wine, who could ask for more? When you do eventually drag yourself out — that's the tricky bit — the fire gets a restart and in go the work clothes to stew overnight. The rest of the washing is bundled into a black plastic drum (soap and water of course) lashed onto the Landrover which then provides the agitation as you drive around. So long as the washing doesn't pile up too much, this

A few of the many uses for 44 gallon drums.



system works very well. As I've no power presently for the iron (can't help bad luck!) most things are drip dried.

For lighting we prefer to use kero pressure lamps which are much more economical than gas. They give just as good a light, only they are a bit more difficult to get going. Cooking is done over an open fire and/or in the oven. Incidentally, the 44 oven cooks everything from biscuits and cakes to roasts and our daily bread.

We have a small orchard which will be increased this year, a vegetable garden which provides us with all our veges and a soft fruit patch. For stock, presently there are a dozen

and a half chickens and roosters, drakey and 6 ladies, 4 pairs of geese, 1 herd of deer and a dog.

As rock is laid on in these parts the house will naturally be of stone. The timber is also coming off the property and the acquiring of a swing saw has made it possible for us to saw any of the logs that need it. The sawdust is then divided between the smokehouse, garden mulch and fowlished litter.

So far only the roof is up and the foundations are on their way in. First inspection comes this week, after that things ought to start moving more quickly. So I'd better stop writing before I get the sack and the house doesn't get built.

## Better Late than Never

by Beryl McIntosh, Talbot, Victoria.

The sun is streaming through the window and I've fed the chooks, and found another egg. That's three so far — does that make me a producer? I've had my breakfast, three cups of coffee, cuddled the dog for ten minutes, and I was going to do my washing, but decided to sit in the sun and write to you all, to tell you how another oldie is happy in her own little world.

We have 10 acres, the ground is not the best but with a little work we have a vegetable garden, small orchard and a reasonable front garden. We bought our block six years ago, and came up once a month while we were paying it off. We lived in a tin twelve by twelve feet shed for the two days a month we spent here. We were forever fighting off blowflies and mice, but it was ours and we loved it.

We put up fences, changed our minds and moved them again. Then when the block was finally paid off we took out a loan and had our house built to lock-up stage and we are gradually finishing the inside ourselves. I designed the house to be cheap and functional, there isn't one room that doesn't receive sunlight at some time of the day during at least one season of the year.

I gave up my job over twelve months ago and was finding it hard to settle down after twelve years of strict routine, and as we were paying off our loan and paying rent in Melbourne our money wasn't going very far. One day Ron asked me if I would like to live up here and would it be financially viable. I jumped at the chance, but the fact that we still had our youngest son living at home worried me a great deal. When

you see six children go off and marry at early ages and the baby stay home until he is over 21 you feel you have to stay with him until he makes his own move (or I did anyway). We talked it over and decided that if he stayed at home and I moved out my conscience would be easier.

I came up here for one week without the car and only my very spoiled poodle-cross for company. I thought if I could manage without electricity and car, I could manage anything. I have been up here three months now. Ron comes home once a week; I have my chooks, my vegetable garden, the car and telephone. The money we save on rent is paying for the SEC we hope will be on after Christmas. In the meantime I manage with my gas-lamp and television on the battery. We recharge the battery once a week when Ron puts the generator on.

I have neighbours and friends I can call on if I need help and we go to the local hotel for a couple of hours every few weeks and the local football. We have been accepted which is perhaps the best thing of all. I find that after thirty years of being a wife and mother, I can relax and do my own thing. I eat when I want to, sit in the sun when I want to and generally please myself, without having to worry about what needs doing for the family.

Ron boards with one of our married sons, and when he comes home once a week we go out together and find we both appreciate each other a little more. We are looking forward to his retirement in two years when we will finish the house and relax together a lot more.

I have two barrels of home brew on the bench busily bubbling away and my washing is soaking in the trough (handwashing isn't hard if you soak it overnight). Looking back over the years I find that I have ironed too many clothes; I only iron our good clothes now when the generator is on.

I miss my fridge and freezer and microwave oven, but I'll have the use of them again soon. I will be able to freeze all my surplus vegies, and walking three feet to put the butter in the fridge will be heaven compared to walking two hundred yards to put it in the neighbour's fridge. (He has a small fridge which he was kind enough to suggest I use, and as he only comes up every few weeks, I feel I am not imposing on him. He gets a home cooked meal, fresh home baked bread and a couple of glasses of home brew when he arrives.)

They say life begins at forty. I'm a couple of years late, but better late than never. So to all you people out there thinking of making the move. Don't just think about it, do it before it's too late to realise your dream.

## Reality at a Price

by Col Statham, Emerald Beach, NSW.

Readers may remember a previous article by Col, *From Dream to Reality* (GR 49), in which he described how he and his family were working towards their ideal lifestyle. While hopeful of success, he warned then of the effort and expense involved in starting out on your own without much capital or experience, and stressed the need to have clear priorities. Now Col explains the high personal cost of achieving his dream, but still retains his hope for a grass roots future.

It's been a while now since I've had a tale to tell in GR, early '85 I think. *From Dream to Reality* (GR 49). The dream was fine, the reality a lot harder. I got there, oh yes! I got there, I have proof in the shape of a pewter mug, suitably inscribed 'Most Successful Exhibitor', 1984, for producing vegetables on a large scale. It was fine receiving it but it gave little insight into the enormous amount of work that went on behind the scenes in any large operation, that is very rarely or ever given its proper recognition. It was successful, but what a price I paid for that success.

I should say 'we' were successful, as my wife worked equally as long and as hard. For more than 15 years I chased the almighty dollar, working long hours, as I was also employed on shift work with some weeks bringing in over \$900 (work out how many hours, some double time, to amass that much, and you'll come somewhere close) and then you'll agree there wasn't much time for anything else. I did manage to fit in about 1½ hours sleep and 16 cups of coffee per 24 hours, in between the 101 jobs to be done. You've heard it all before, I'm sure.

I had folk calling in who would work for their stay, it worked well, it began to take a bit of pressure off and for over 12 months worked fine. Then one chappie came, we got on well. He stayed, and he stayed, and well, you know how some chemistry works. He moved in and I moved out, it was simple. I was so far into the zombie state that I couldn't think straight, and I am a great believer in the adage, that everything happens for a reason. I believe this was the push I needed to change my whole life that, on looking back, I now know was going to pieces, although I couldn't see it at the time.

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### FOLKWEAR



It was an anxious time for many months trying to straighten myself out. There was now a big reduction in coffee and substantially more sleep, even though sometimes disturbed, and early morning awakenings (2 or 3 a.m.) were common. I was running away from everything. I never spent more than 3 nights in the same bed for over 8 months, I travelled over 100,000 km in 18 months and slept anywhere between Nowra NSW to Brisbane Qld — friends (only a couple stuck to me), caravan parks, relatives, slept in the station wagon. I couldn't face people for any length of time, so would be on the move again.

I still got my GR magazine, read all the contacts re ladies, wrote to a few, but they all fizzled out before we met. They could possibly read between the lines and pick up on the anxiety state that I was going through. It was a lonely time, but I battled through and learned a lot about myself.

I saw a letter in GR from a younger woman in a similar situation. I wrote to her, and over the following 8 months we have seen each other regularly in a father/daughter relationship. Now we have this wonderful rapport between us, it is one of the most beautiful feelings I could ever wish for. Maybe she's taken the place of the daughter I never had. I was still running away when I met her, but now not as far or as fast.

We'd talk on many subjects and these conversations with someone in their twenties brought a breath of fresh air into the nearly closed mind of someone much older. A new dimension of my life was opening up, and one day when I was a bit down in spirits she told me in no uncertain terms to get out of my own mire. This hit me pretty hard, and further discussions caused me to think about what I had now, and not to dwell on



the past. From then on I haven't looked back.

I took stock of what I had, my health, my dogged determination to get out from under, and my will to fight back. I stopped running. I started helping others, voluntary work, and NOW!!! Stewth!! was that really me! I am now more relaxed than at any time of my life. I have one of the most enviable of lifestyles one could wish for, and more importantly I am happy with me. I learned a lot about myself, my strengths, and weaknesses, my future ambitions. I can and will start again. I am divorced now (Feb '87) and have no animosity towards my former wife — we just grew apart. Our children have grown up and are married, they understand. My heart still gets heavy though, when my young grand daughter asks, 'Where's Nanny?' but these are the little niggles one must tell the truth about. Life goes on, I am very thankful for what happened, back in 1985. If it hadn't happened when it did, I shudder to think of what I'd be like now.

There's plenty I've left out, but the reader can read between the lines that there is a happier person emerging, one that can look forward to a new life, that will be different to the old. My future — I'll get some acreage, coastal NSW, perhaps the Mullumbimby area. I'll let you all know where, and when I get my new place, so when you are travelling this beautiful country of ours there'll be a welcome for you.

#### Handy Hint

The blackening which occurs with some varieties of potatoes can be prevented by adding a dash of vinegar or lemon juice to the water.

#### FRUIT BOTTLING *Continued from p. 17.*

- Use the same times as given for the water bath method, adding an additional 20-30 minutes.

#### Stewing

Fruit can be stewed before processing. This method of preserving does not give a final produce with such a pleasant appearance but is suitable for berry fruits, apple pulp or other fruits intended for use in pies.

- Prepare fruit as for other methods and add desired amount of syrup.
- Cook fruit gently to prevent breaking.
- Place rubber rings on jars and pre-heat them.
- Fill jars one at a time with boiling fruit and seal.

#### TESTING FOR SEALING

When processing by any of the above methods is completed, place the jars on a thick cloth or board to cool. Seal screw-type jars tightly as soon as they have been removed from cooler. After 24 hours the lids should be tested to make sure the vacuum has formed. To test clip-type jars remove the clip and gently lift the jar by the lid. All jars can be turned upside down and left for a few minutes. If continuous bubbles can be seen, air is getting into the jar. If the seals have not formed, the jars must either be re-processed or stored in the refrigerator for use in the near future.

Reprinted from Fact Sheet No 26/79, revised May 1983, SA Dept of Agriculture, GPO Box 1671, Adelaide 5000.

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# Fruit Bottling

Bottling is an economical way to preserve fruit from the garden for use throughout the year. The initial cost of equipment is relatively high, but it will be recouped over the years of use.

For bottling, fruit is processed at a temperature high enough to destroy yeasts and moulds. Because a much higher temperature is required to destroy bacteria spores, it is best not to bottle vegetables. Tomatoes are an exception and can be bottled in the same way as fruit because their high acid content inhibits bacteria growth.

## EQUIPMENT

### Steriliser

Use a large pan with a tight-fitting lid. It should be deep enough to take a platform, such as a cake rack, with jars standing on it. A Fowlers outfit with either an electrical element or one that is heated on the stove is ideal. Fruit can also be bottled in an oven.

### Jars

Jars must have tight-fitting lids with a rubber ring seal. Fowlers jars with a spring clip are readily available. The initial purchase of jars is expensive, but with careful use jars will last indefinitely, as will stainless steel lids. Rubber rings will need to be replaced more frequently and should be checked carefully before each use. Choose jars with a wide neck to make the packing of fruit easier. Other equipment, such as packing sticks, is readily available, but although helpful it is not necessary.

## BOTTLING MEDIUM

- Although sugar syrup is the most common medium for bottling fruit, honey can be substituted. Use 1 cup honey to 2 cups water and remember that it will darken the colour of the fruit.

- The density of the syrup is determined by taste and type of fruit. Light syrup is suited to all but very tart fruits.

Light syrup: 1 cup sugar to 3 cups water

Medium syrup: 1 cup sugar to 2 cups water

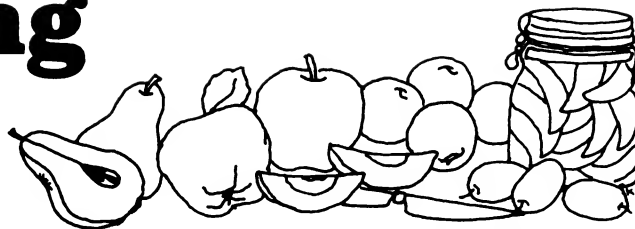
Heavy syrup: 1 cup sugar to 1 cup water

To make syrup, heat sugar and water together and stir until sugar is dissolved. Boil for 5 minutes. Grated orange rind may be suitable to add to the syrup for some fruits — for example, pears. To increase the acidity of low acid fruits, e.g. pears, add 2 tsp citric acid to each litre (1¼ pt) of syrup.

- Water can be used if bottling fruit for people on special diets. The appearance of fruit will not be as pleasing but the result is satisfactory. Boil the water to be added to the fruit. Do not add artificial sweeteners before bottling — add them when serving.

- Brine is normally used to bottle tomatoes. For whole tomatoes use 1 tbsp salt to 1 litre (1¼ pt) of water. If tomatoes are pureed add 2 tsp salt to each litre of puree. Add 2 tsp citric acid to each litre of liquid to insure the acid level is high enough.

- Brandy can be used to replace part of the syrup to give brandied fruits. Make a heavy syrup with 1 cup sugar to 1 cup



water and use half syrup and half brandy in each jar. Other liqueurs can be used but the proportion of liqueur to syrup is less. For example, for creme de menthe pears use 10 percent of creme de menthe and 90 percent of heavy syrup.

- Fruit juice or a mixture of fruit juice and water can be used instead of syrup.

## PREPARATION OF FRUIT

Fruit for bottling should be freshly picked, ripe but still firm, and free from blemishes. Wash fruit and remove stones and peel. Peaches and tomatoes can be peeled by plunging into boiling water for one minute, then into cold water. If fruit is evenly ripe the skin should now slip away.

## METHODS USED

Fruit may be bottled in a water bath, by oven sterilising or by stewing, according to the type of fruit and the purpose for which it is to be used.

### Water Bath

This is the most common method, using the following procedure:

- Prepare syrup.
- Place rubber rings in position, checking to see they are not twisted.
- Pack fruit firmly into jars.
- Completely fill jars with syrup.
- Place lids and clips on jars.
- Place jars in steriliser, add cold water to come three-quarters of the way up the jars.
- Heat slowly until boiling. Hold at that temperature for these times:

apricots	25-30 minutes
cherries	25-30 minutes
nectarines	10-15 minutes
peaches — cling stone	30-40 minutes
peaches — free stone	25-30 minutes
pears	25-30 minutes
plums	10-15 minutes
quinces	30-90 minutes — to reach desired colour
tomatoes	25-30 minutes

### Oven Sterilising

Follow the first three steps as for water bath method above, then:

- Heat oven to 180°C (350°F).
- Place a shallow baking dish in the lower half of the oven containing 2-3 cm (1-1½ in) water. The pan should not touch the sides of the oven.
- Fill the jars with boiling syrup.
- Place lids and clips on jars.
- Place the jars in the oven, checking that jars do not touch.

*Continued p. 16.*

# BUSHFIRE!

## evacuate or stay?

by Joan Webster, East Doncaster, Vic.

For too long the annual bushfire destruction, though mourned, was accepted as a part of Australian life. Now we see a much more positive approach to the problem — prevention rather than simply survival. Safer house design, more careful farm maintenance and public education all play a part. Following last year's articles (GR 59), here is some further advice on avoiding the bushfire danger.

The problem with evacuation and bushfires is that it is a paradox: the only truly safe time to go is when a fire is so mild that there is little danger — and from this type of bushfire your country home can so easily be defended. Following the disastrous Ash Wednesday fires, studies by bushfire researchers have found that 60 percent of homes evacuated in bushfire are likely to be destroyed; that 82 percent with anyone in attendance and 100 percent with three or more people over the age of 10 are likely to be saved. And abandoning your country home to its likely destruction does not guarantee your personal safety. The shelter of your home usually does.

The answer is to carefully assess the risks involved in either staying in your home or leaving it, to be prepared, to plan and practise emergency procedures. Evacuation from bushfire is not a magic carpet to safety. During a flood you can be pretty sure that by evacuating to high ground you will be safe. If there is a bomb scare, experts can calculate the distance away from its expected centre that you will be safe. With bushfire you can never be sure. This is because a bushfire sends ahead of it and trails behind it a shower of embers so that new fires spring up and multiply anywhere the embers land.

### ASSESSING THE RISKS

There has been an assumption in some past official advice that a bushfire will start some distance from your property and move slowly towards it, giving you time to 'decide to evacuate early'. But it can easily start in adjacent bush, in the vacant paddock next door, or speed up from a slope below you. You might think you'll decide ahead 'I'll evacuate when smoke is a small, straight plume . . . that is safe and early.' It doesn't often work out that way. On a hot, windy day, immediately on ignition fire can race away and if not put out within five minutes be uncontrollable, its embers leaping ahead and starting new fires where they land, cutting off roads and pathways.

During evacuation from bushfire along narrow, twisting, tree-flanked roads ash, embers and bits of burning bark rain down; flying saucers of galvanised iron can fly overhead in the fury and 15 metre trees snap like drinking straws before 160 kph winds. Even wide open roads through cropland aren't safe. During the Avoca/Maryborough and Melton fires the summer before last, burning rubbish blew across roads with ploughed firebreaks spanning 20 metres and cut off the roads with flame. Spot fires from embers can spring up commonly 10 kilometres and occasionally 30 kilometres ahead of the main fire, and so evacuation often transports people towards it, towards being trapped between fires. Often people unknowingly drive towards a new front. Very often they crash in

smoke. Frequently a string of mass-evacuating cars are stuck because some stall.

Never drive through endangered roads to protect an unattended country home. Embers smoulder slowly and can take four hours to produce flame. If you are absent when a bushfire begins in your district, or if you do evacuate, return home immediately after the fire front has passed, as soon as the roads are safe.

Some municipalities have designated community refuges for those who are too frail or too fearful to stay at home, but not many have ensured safe routes to the refuges. You need to realise, too, that the only guaranteed safe time to evacuate people is as a precaution — before a bushfire starts. Town and city people need to be aware of this, too, and encourage their urban-fringe and country relatives to bring small children, the very old and the frail to them the day before a bushfire is likely — which can be on any hot windy day, especially a day of total fire ban. Compare the refuge value of your country home or business premises with that of the local community refuge, or with travel to a large town.

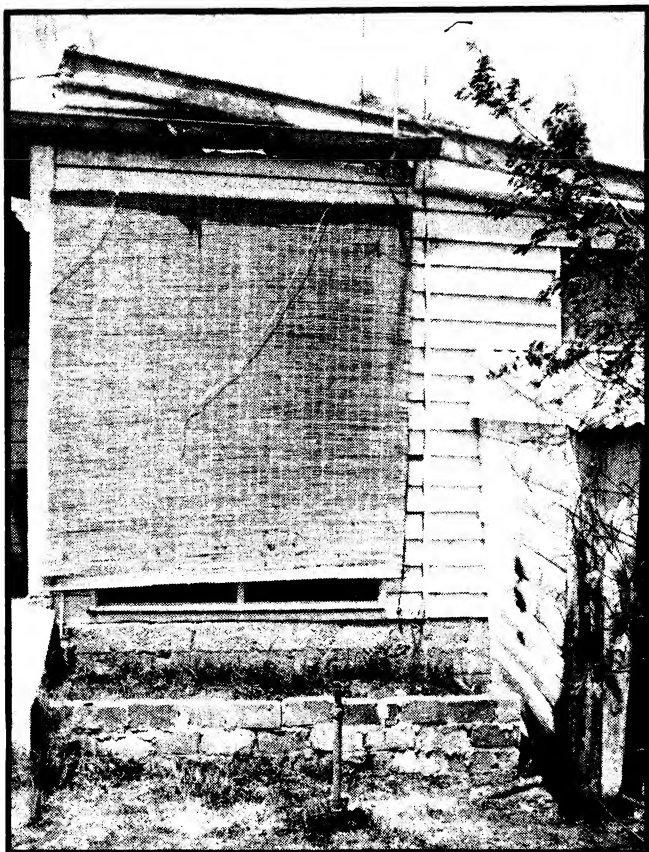
### Your Home or Business Premises

- Does it have a strong roof? Can windows be protected from ember entry? Are gaps and sub-floor area protected from ember and spark entry?
- Is grass short, trees spaced and free of undergrowing shrubs and plants?
- Can you wield a hose, wet mop or dippers of water?
- Would you have water to use if the reticulated supply failed to operate?

### Community Refuge

- Is it a building or an open space? In a sports ground or beach you could be exposed to falling embers, violent wind and fierce radiant heat from adjacent bush.
- Could you be certain of reaching it safely? Could you be sure that wind-borne embers from the fire from which you are evacuating, won't start fresh bushfires near you in grass, crops or bush beside the road as you travel? Would the roads to it be safe to drive through in smoke? Can you be sure of a 'clear run' from home to refuge, or could the road be jammed with other evacuees' cars and fire units?
- Can you be sure your car won't stall in the heat? If your car became immobilised, would you rather be at home? Do you know that a car is not a safe refuge in a forest fire?
- Would you be sure to be able to return to your home from the community refuge as soon as the fire front had passed, to put out ignitions that may have started in it? Understand that this depends not just on official permission, but also on burnt bridges or trees fallen across the road.





Even this old house with its inappropriate flammable bamboo blind was readily saved from destruction during the worst bushfires of Ash Wednesday. Note the doused ember ignitions in the gutter (centre top) and lean-to wall and support post.

(Picture: Katherine E. Seppings, reproduced from *The Complete Australian Bushfire Book*, Nelson)

- If your home or business burned and precious possessions were lost when abandoned, how would you manage financially and emotionally? How would your pets fare in the fire while you are evacuated?

## BEING PREPARED

One reason people feel impelled to flee from homes threatened by a bushfire is that they fear the building will explode from the intense heat of approaching flames. This is a myth, disproved by scientific evidence too lengthy to discuss here. Homes destroyed by bushfire burn from the inside, out — when embers are allowed to enter. There are many ways to seal your home from embers, including metal flywire over gaps, metal shutters over windows, having a solid and never a shingle roof. You can even add a safe refuge room.

The intensity of the heat reaching your home can be controlled by you. It is directly proportional to the density of the vegetation close to it. Space your trees, grow nothing taller than mown grass beneath trees, with native trees stick to well established smooth-barked species, clear the ground of tan bark, leaf and other litter, have a path between buildings and any vegetation and use fire retardant plants in the home garden. If privacy is your reason for trees huddling over the house, elbowing the eaves and snuggling up to window sills, noncombustible fences do the job just as well. Stone will look

as rustic, but if this is too expensive grow ivy — recognised since ancient times as a fire inhibitor — over wire mesh.

Keep as large a supply of reserve water as possible — 25,000 litres if you use sprinkler protection — a non-electrical pump and plenty of metal containers such as buckets and old baths with dippers or mops for throwing it onto landing embers. Put together a survival kit of protective pure wool blanket, pure wool or strong cotton clothing (cheap at the op shop) with hat, strong boots and a nose cover and learn the pattern of protection for safe home defence and sheltering from fire authority brochures or as detailed in recent books.

In brief, this is:

- Outside, in protective clothing, dousing embers until the radiant heat makes your hands too hot.
- Inside for 5-15 minutes, busy dousing entering sparks until the flame front fizzles or passes you.
- Outside again, mopping up embers for at least four hours.

If you have modified your home to be virtually sealable from flying sparks and embers, protected glassed areas from breakage by hurtling debris, kept your garden uncluttered, taken care with chores of raking grounds and clearing gutters, provided yourself and family with protective clothing of pure wool coveralls and emergency water, and learned the simple but lifesaving protection procedure pattern, then during a bushfire you can be 'as safe as houses'.

Joan Webster is the author of *The Complete Australian Bushfire Book*, available for \$23.50 posted from Night Owl Publishers, PO Box 764, Shepparton 3630.

Previous articles in GR have covered the following topics:  
*Bushfire Safety in Urban Fringe Areas* — GR 28, pp. 29-32.  
*Protecting Your House from Bushfire* — GR 29, p.22.  
 Fire feedback — GR 39, p. 97.  
*Being Prepared for Bushfire* GR 40, pp. 46-7.  
*Bushfires and Mudbrick House* — GR 53, p. 40.

## PINE NEEDLE MULCH

Pine needles make a good mulch for vegetables, berry bushes and fruit and nut trees. The needles are slightly acidic because pine trees take up relatively small amounts of the alkaline elements — calcium, magnesium and potassium. They also release organic acids as they decompose, but since the process occurs only slowly, the acidifying effect is fairly slight. This makes pine needles ideal for acid loving plants, while also suitable for those requiring a neutral pH.

Reprinted from *The Living Soil*, Vol 4, No 14, the newsletter of the Soil Association of SA, GPO Box 2497, Adelaide 5001.



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# Creating A Low Maintenance Shrubbery and Bird Sanctuary

by Jeff Hodges, Holland Park, Qld.

To the natural gardener the first priority when starting out is to begin to re-establish ecological harmony within the garden/house situation, in order to create a garden ecosystem. In most of our cities and suburbs, for the ease of greedy developers, most of our natural trees and shrubs were removed. This has meant not only a lack of greenery in many new suburbs, but also an accompanying lack of birdlife and other valuable natural wildlife such as lizards and worms.

Apart from the joys of waking to the sounds of magpies or kookaburras greeting the new day, or seeing little silvereyes, willy wagtails, or swallows zipping around the yard, birds are extremely important to the natural balance of our ecosystem and are a great boon to the gardener. They help to keep insects down to a manageable level in the garden, and their songs have a profoundly positive effect not only on humans, but on the whole garden — stimulating and encouraging plant growth and development. Very little is really known about the effects of sounds such as birdsong on plants, but there is increasing evidence to suggest that music and sound can and do affect plant growth — both positively and negatively. Personally, I believe the effect of birds on plant growth is profoundly positive. Can you imagine walking into a healthy forest and not hearing the sound of birds?

So it is important to encourage birds to your natural garden. The only way this can be done is by providing a livable habitat for them. This means planting trees and shrubs. In fact, I believe that the trees and shrubs in your garden are the most important items — and much care should be taken in selecting and siting these in appropriate positions in the garden. To my mind, they are the very foundations of your garden ecosystem, and should be planted before anything else when starting a garden.

Trees and shrubs are so important to your garden: they provide the structure around which the rest of the ecosystem evolves; they break up the subsoil, and bring up nutrients that have been leached down out of the topsoil; they hold the soil firm, preventing erosion; they provide shelter for animal, bird, and insect life; they provide shade and oxygen; and most importantly in our busy cities, they provide a buffer zone between the noise and air pollution of street traffic and your garden and living area.

The design of your garden is without a doubt one of the most important elements in starting a garden. Too often, impatience gets the better of us, and we rush in and dig up an area, or plant some trees, only to find out six months later that we don't really want the rose garden there, or those trees and shrubs in that spot after all. With a little forethought, and attunement, you can develop an efficient and productive garden ecosystem in harmony with your land.

Take time to walk around your land — look at it, and get a feel for it. Spend some time noticing details like the fall of your land; your soil type; where and how existing trees and shrubs are situated; drainage; the path of the sun in both

Diagram 1 Suggested garden designs.

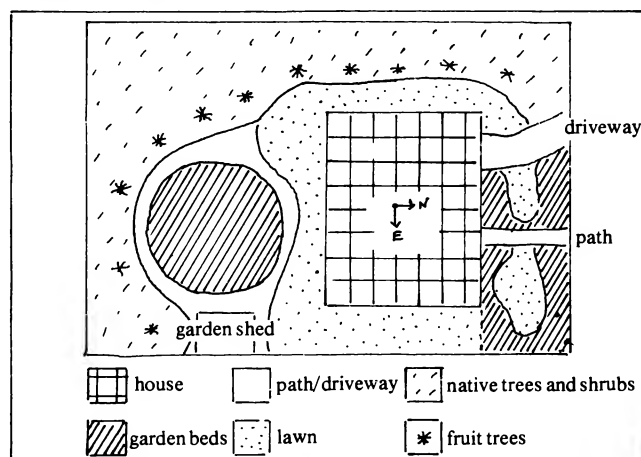
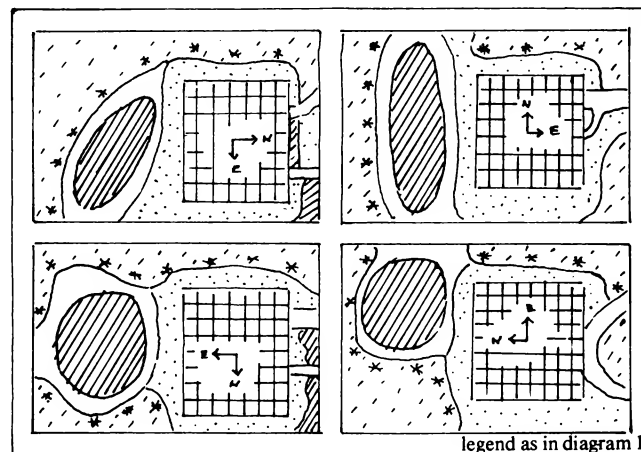


Diagram 2



winter and summer, where you have the best soil; and so on. Imagine what your land looks like from a bird's eye view, and how it fits into the wider landscape of the surrounding countryside. Imagine what it looks like underground.

This attuning to your land allows you to truly develop a working relationship with your garden ecosystem, because by attuning in this way, you will begin to get 'nudges', or intuitions, from your land — what to plant where, and when, what types of trees, shrubs and plants to choose, and so on. You just know — and the amazing thing is that when you follow these intuitions, these nudges, the results are spectacular. The trees and plants grow incredibly well, and are not bothered by insects or diseases.

Then sit down with a pad and pencil, experiment with a few designs, and imagine how they would look. In diagrams 1 and 2, I have illustrated some designs which feature sound elements in low maintenance garden design. Avoid designs which mean a lot of work. For instance, planting trees in the middle of a lawn is a certain recipe for making work for

yourself, yet so many people do it! Firstly, you have the nuisance of mowing around the tree, then there are the edges and as the tree grows, the lawn deteriorates around it.

I try to minimise the amount of lawn I allow in the design, since this minimises the amount of work involved. Trees and shrubs are easier to maintain and care for than a lawn, which requires regular mowing and watering. In fact, I try to set aside as much as 25-35 percent of my land to trees and shrubs, because of their importance in the garden. This may be unacceptable to those of you who value expanses of lawn, but I would like to encourage you to value trees and shrubs more than lawn. In addition to the advantages previously mentioned, a good low-maintenance shrubbery also provides a valuable windbreak, and increases your privacy.

Once you have a design you are happy with, there is a very simple technique to follow to make establishing your shrubbery and bird sanctuary very quick and relatively easy. In fact, if you follow the procedure I outline below, a modest shrubbery (say 5 m x 10 m) can be completely finished in 2½-3 hours.

The advantages of this system are many:

- Firstly, you don't have to dig over the whole area you wish to plant. You don't even have to kill any existing grass, because the newspaper and overlying layer of mulch blocks out the light, and it dies.

- It is a truly low-maintenance shrubbery — weeding is rare. I only do mine once every 3-4 months, and the mulch needs to be replenished only every 4-6 months or so. Eventually, as the trees and shrubs grow to maturity, they create their own leaf litter, which means even less work and expense for you.

- All items used are cheap and readily available — and biodegradable. DON'T use black plastic! It is truly dreadful stuff. It doesn't allow your soil to breathe, or water to penetrate. Newspapers are much cheaper and far better. I also avoid using pine bark or pine chips, since both these give off a chemical residue which inhibits plant growth. Plain straw is the cheapest and best mulch I have found — it breaks down into a fine food for your trees, and lasts about 3-4 months before you have to renew it. If it seems a little unsightly, I suggest trying peanut shells or perhaps hardwood chips as alternatives preferable to pinebark.

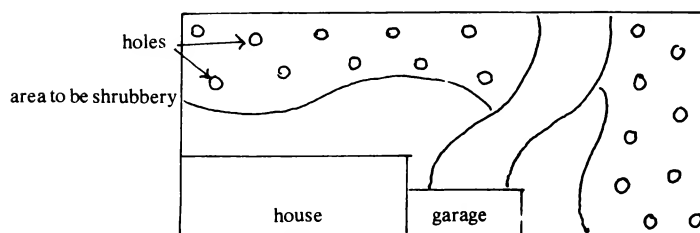
One final point on selecting your trees and shrubs. In my opinion, natives are best. They are hardy, and much more beautiful than any exotic, and are less troubled by insect and disease problems. They are fast growing, and generally suitable for any situation, soil type, or conditions. The grevilleas, callistemons, and banksias all attract birds as well — and how could we have an Australian garden without at least one gum tree?

Jeff Hodges is the author of *Harvesting the Suburbs: Australian Backyard Gardening — A Natural Approach* available from any good bookshop or direct from the author at 23 Macklin St, Holland Park 4121, for \$11.95 including postage and handling. You can also order it from Night Owl Publishers, PO Box 764, Shepparton 3630.

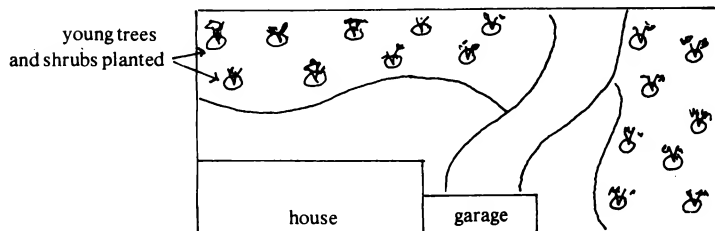
### Frozen Parsley

Place chopped parsley into ice block moulds with a little water and freeze. Alternatively put finely chopped parsley into small plastic containers, seal and freeze.

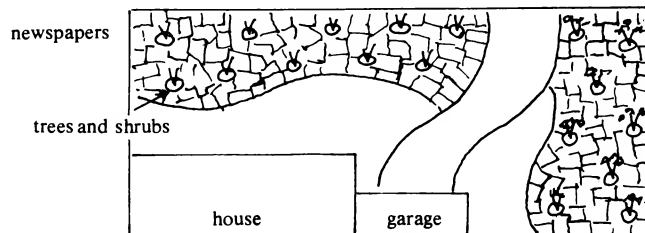
Simple steps to creating your shrubbery.



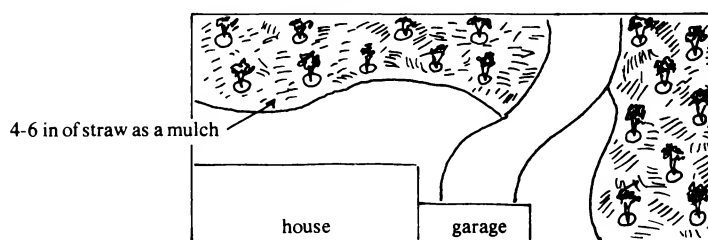
Mark out the area to be the shrubbery, and dig holes 30 cm in diameter in which to plant the young trees and shrubs.



Plant the trees and shrubs and water them well. Preferably do this on a rainy or overcast day. In general, the taller growing species should be placed to the rear.



Cover the area between the newly planted trees and shrubs with sheets of newspaper — at least 4 sheets thick.



Cover the newspaper with 10-15 cm (4-6 in) of suitable mulch, e.g. straw or bagasse. Weed once every 3-4 months, and keep the young trees and shrubs well watered until they become established.

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# BASIC POTTERY

by Margaret Devine, Central Coast, NSW.

I have been potting for the last five years and often think of my fellow earthy friends and how the knowledge of pottery could help them, so here goes. First find your nearest pottery supplier in the telephone book. Most of these will send your order out by rail.

You will need raku clay which is a coarse clay and can stand thermal shock. Raku is a Japanese word for enjoyment. Clay is cut from the block with a piece of fishing line 45 cm (18 in) long: tie a stick 8 cm (3 in) long on each end, draw through the block about 10 cm (4 in) down and then in 10. Roll each square into a ball and push your thumb into the middle but not too far through, pinch thumb and finger together, squeezing clay; go around the pot doing this, overlapping each pinch so the thickness is even; pinch from the bottom up as you go around, leaving the top thickest until the last. When you have finished the pot should be 10-13 mm ( $\frac{3}{8}$  to  $\frac{1}{2}$  in) thick and this thickness should be very even, to test this you can slice a pot through in halves with your fishing line. It's a good exercise to do this, you can roll up your clay and start again. Dry your pot upside down to prevent warping and don't dry in direct sun.

Always keep your bag of clay airtight and put used clay in an airtight bag with a damp or wet sponge or rag. Don't take too long making your pot or it will become dry and cracked. Keeping the hand slanted towards the centre of the pot while pinching will keep the bowl rounded, slanting the hand outwards from the pot while pinching will result in a dish. These are classed as pinch pots. Now let's try slab pots, these are made by rolling clay out with a rolling pin on the back of vinyl or rag covered board with a 10 mm ( $\frac{3}{8}$  in) batten placed on either side so the rolling pin rolls on them and results in an even thickness. You can cover a bottle, dish, brick, or anything without an undercut, with a stocking or newspaper and cover with your clay slab. If you have to join pieces, overlap the clay and work in as one clay with no sign of a join. To add pieces for decoration, use clay and water mixed to the consistency of toothpaste as glue — this is called slip. Slip can be used on joins of drier clay after scrubbing sides to be joined with a toothbrush. Keep pots fresh and edges smooth, don't over work and weaken them.

Remove pots from moulds when firm. Don't leave to dry as they shrink and will crack if tight on mould.

Now we are onto coil pots: roll out long sausages of clay (called coils) about 2 cm ( $\frac{3}{4}$  in) thick and roll a ball of clay and flatten for base and place coil inside this base and coil around the length of 1 coil then draw clay up on the outside including edge of base and draw clay downwards on inside so no joins are visible and a 1 cm ( $\frac{3}{8}$  in) thickness is maintained all over, continue adding coils like this to required height. Larger pots can be thicker. You can wet your hand and smooth over when finished but easy on the water or you will weaken the pot. Imprints can be made for decoration with a paddle pop stick, pine cone, hessian etc. Once your pots are bone dry they need to be bisque fired to 900-1000°C (1652-



Local children with raku pots they made and glazed.

1832°F) then glazed and glaze fired. So coming up is one kiln, after you have found 200 house bricks (solid type for the first 2 rows and the chimney can be the holey type). But if you can acquire fire bricks from an old bakery, brick yard or old timberyard boilers, better still. (See next page for method.)

Let's bisque our pots now, pack kiln very early on a very fine morning. Pots may be stacked in the firing chamber but don't put too much stress on pots with uneven stacking or too heavy a pot on top of a light one, place heavy ones in first and light ones on top, don't pack on brick closest to fire box. Shrinkage takes place in this firing so don't put similar size pots inside each other or they may jam. Clear the area of the kiln of dead grass etc, have plenty dry wood stacked ready — fruit boxes are great or weather boards off old buildings are great burners.

Light fire on front brick of fire box burn for  $\frac{1}{2}$  hour.

Add fire on 2nd brick of fire box burn for  $\frac{1}{2}$  hour.

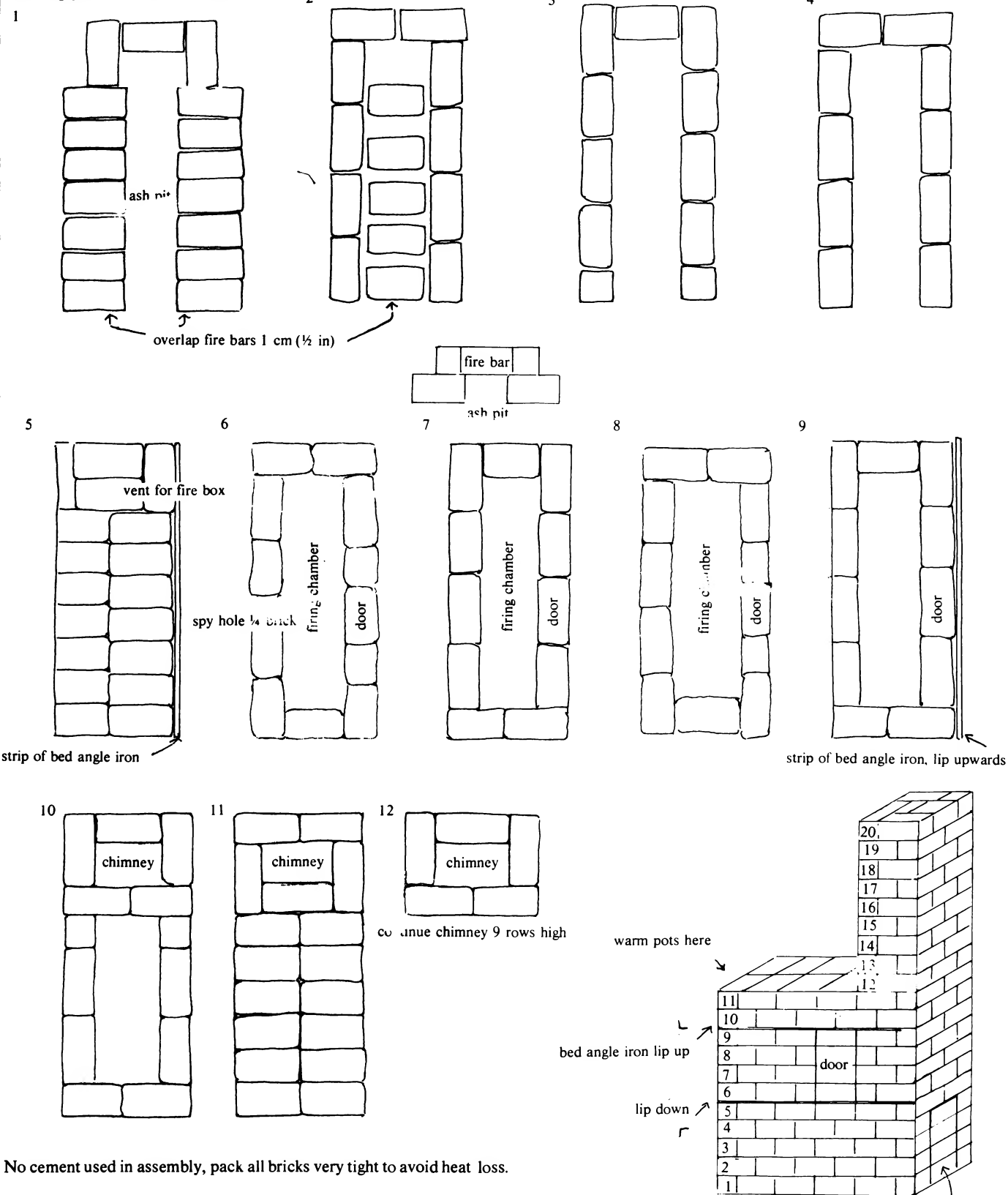
Add fire on 3rd brick of fire box burn for  $\frac{1}{2}$  hour.

Add fire on 4th brick of fire box burn for  $\frac{1}{2}$  hour. Now add a full length piece down either side of firing chamber and keep a good fire at mouth at all times to stop cold air entering. Retain this degree of burn for 1 hour.

4th and 5th hour — now feed to the back of the kiln and keep a real good fire going. Use clay slops, clay scraps wet down and drained, add some sand if using dug clay. Cement up holes with this slop, anywhere smoke or heat comes out to contain all precious heat.

6th hour. Bore in as much heat as possible. You can tell when your kiln reaches bisque temperature by the colour glow inside — view through the spy hole — approx 670°C (1264°F) = dull red; 825°C (1543°F) = cherry red; 945°C (1759°F) = orange and then onto yellow orange. But this takes practice to recognise so when you order your clay order some cones (07 Orton) for bisque. Make a seat in a 4 cm ( $1\frac{1}{2}$  in) ball of clay flattened, slant flat side slightly forward,

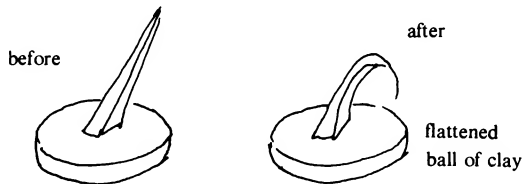
# Building your kiln, layer by layer.



No cement used in assembly, pack all bricks very tight to avoid heat loss.

You can leave door brick on row 6 in place and door brick on row 7, 8, 9 jutting out 38 mm (1 1/2 in) so you can grip them with tongs to remove and leave spy hole (row 6) out 25 mm (1 in) so you can grip it with tongs.

wiggle cone, handling very gently, to make hole bigger to allow for shrinkage and let dry. On morning of firing replace cone in clay and place in front of spy hole but not touching anything. When temp 973°C (1809°F) is reached cone will bend; always keep cones very dry, don't leave in wet clay.



Once temperature is reached you can let the fire go down gradually and stack bricks over fire box and on chimney and leave until next afternoon. The main thing throughout the firing is to avoid any temperature shocks as pots will expand and contract too much and crack or blow. If you think your kiln will go to a 1080°C (2002°F) cone 03 firing, you can repeat the firing procedure but no pots must touch each other for a glaze firing and allow 1 cm (½ in) space between pots. Sponge off any glaze from base of pot and 6 mm (¼ in) up the side. Glaze with a bought paint on earthenware glaze.

Or do a raku firing 800-900°C (1472-1652°F). Tie your hair back and have no loose clothing that will be in the way. Glaze pots in raku glaze, made from Frit 3134 2 kg (4½ lb), Nepheline Syenite 500 g (1 lb), added to 1½ to 2 lt (2½-3½ pt) water for clear, or better still add 90 g (3 oz) iron oxide and 90 g copper oxide (all from your pottery supplier). Glaze should be like thin cream.

Put your glazed pots on top of the kiln to get warm, as you load the warmest in the kiln replace more on top.

Get a roaring fire going quickly, no pots in yet. When the flames are up the chimney remove door with tongs and asbestos or heavy leather gloves and place pots in quickly with tongs, not touching each other and shut door. In about 20 min remove one door brick and see if glaze is shiny. When shiny remove with tongs into a steel garbage bin with sawdust, leaves or seaweed and cover pot with more sawdust and when all in put lid on to smother — this is called reduction. Reload kiln and shut door for round two. You need team work for this so minimum heat is lost. Keep flames up the chimney. When second load is in remove pots from bin with tongs and plunge in a tin of water; when they have stopped sizzling remove, or you can remove from kiln and place straight on a brick without reducing, or plunge into a tin of water.

Log tongs are cheaper, avoid small necks and flat plates.



Raku tongs about 1 m (3 ft) long



All this information is basic trial and error, which is the best experience. It's like playing a piano — the more practice the sweeter it gets. Hop along to the library to expand your knowledge once you get the taste of it. Two books I recommend are:

*A Simple Wood Fired Kiln for Earthenware.* The Ceramic Study Group, Box 5239 GPO, SYDNEY 2001 (a cheapie). *The Illustrated Dictionary of Practical Pottery* by Robert Fournier.

To practise these techniques I have described, you need to order the following:

- No of bags of raku clay (rar/coo)
- 2 kg Frit 3134
- 500 g Nepheline Syenite
- 100 g iron oxide
- 100 g copper oxide
- 10 cones Orton 07

If your kiln goes higher, to 1086°C:

- 10 cones Orton 03

1 jar Cesco or similar Rockingham Brown — a good starter

1 bag earthenware clay (not for raku firing)

Divide oxides up into 10 sections with a knife and use the 10 g left over with some water for paint on design and make bisque garden pots with no glaze. Happy potting.

Other books on the subject available (at special prices) are:

*Notes for Potters in Australia*, I. McMeekin, \$5.50 posted.

*Clays*, F. and J. Hamer, \$8.00 posted.

*Basic Pottery*, T. Birks, \$5.50 posted.

Order from Night Owl Publishers, PO Box 764, Shepparton 3630.



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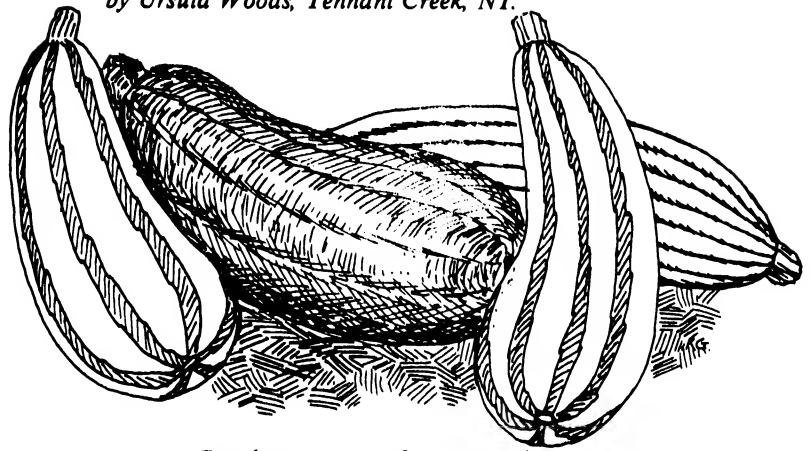
# marrows

*I'll tell you of our marrows —  
I'm sure you'd like to hear,  
Too bad if you don't like 'em much  
'Cause that's all you'll get 'round 'ere!  
It's marrow cake and marrow jam,  
In pancakes grated too,  
In bread and soup, grilled, baked and fried  
And in the pickles too.*

*They were cute when they were babies —  
seedlings growing strong,  
And you might have been forgiven then  
For coaxing them along.  
And then they started flowering,  
And you knew that pretty soon  
You'd pick the first of a real beaut crop,  
And love each mouthful too.*

*But they seem to grow so rapidly,  
You can't keep up the pace,  
And 'fore you know or turn around  
You've got marrow all over the place!  
They must be greedy blighters —  
They grow so thick and fat,  
I always thought there wasn't need  
To bloat as big as that.*

*by Ursula Woods, Tennant Creek, NT.*



*But there you are: fat marrows!  
You've gotta pick 'em now,  
And Mum looks up her recipes  
And solemnly makes a vow  
She'll never plant them ever again,  
(She said that last year too!)  
For the life of her, she can't work out  
How the neighbours can grow 'just a few'.*

*So for now, don't mention marrows  
Or I'll shove one in your ear —  
Too bad if you don't like 'em much  
'Cause that's all you'll get round 'ere!*

# Herb Robert

The healing properties of Herb Robert, or *Geranium robertianum*, are not a new discovery, having been described by the great botanist and teacher Dioscoride. Probably someone in Portugal read his description of the remedial action of Herb Robert against cancer and started to use this herb, or recommended it to others. News of its healing virtue soon spread over the country, attracting the attention of the media. In February 1953 *Natura* magazine printed a letter from a noted Portuguese journalist describing several cases where the herb had been used successfully to treat cancer. In these cases, one involving a frail old lady of 83 suffering from bowel cancer, a treatment of powdered leaves of Herb Robert mixed with raw egg yolk was followed by return to complete health. Other cancers, of the lung, breast and uterus, were



similarly treated with wonderful results, despite the disbelief or scepticism of doctors who had diagnosed these health problems.

Herb Robert is a small, low growing herb with an attractive leaf and pink star shaped flowers. The plant has astringent, homeostatic and antibiotic action. It can be used too as a tea for many curative purposes: kidney and bladder ailments, tuberculosis, internal bleeding, mastitis; externally as a wash or poultice for wounds, rashes and ringworm, and as a wash to remove lice and the eggs — it has powerful healing power. As a tea it has also been used for external ulcers, and external cancers. But for internal cancer it is used and administered in the form of the whole herb, powdered or crushed and mixed with fresh raw egg yolk. Probably for cancer, it would not do to take it in the usual tea form, as all active agents in plants are not soluble in water. For external cancers, it would be advisable, apart from taking it whole mixed with the egg yolk internally, to use it externally as a tea in washing the wound and also applying the tea as a pack and bandaging over the area. If the cancer is in the uterus or in the rectum, the tea should be used as a local treatment, tepid, for irrigations 2-3 times daily. In the same way for cancers in the mouth area, the tea should be used as a mouth wash.

This information was supplied by Isabell Shipard, of Shipards' Herb Nursery, Box 66, Nambour 4560, who have a wide range of herb plants and seeds available. Send SAE for details.



# LEUCAENA

## another great fodder tree

by Col Freeman, Mongogarrie, NSW.

In GR 56 I wrote of the many uses of tagasaste, and it is heartening to see it being incorporated on farms all over Australia. The increasing use of this tree by large-scale farmers will hopefully result in an increase in their profitability and significant environmental rehabilitation. I received many enquiries from Queensland people in tropical or sub-tropical areas, but it is difficult to recommend tagasaste for these areas as its northern/tropical limits are not fully known. Any feedback from tropical areas would be valuable.

Tremendous results are being obtained in tropical/sub-tropical areas from a tree of similar qualities: leucaena. This is a quick growing, deep-rooting, nitrogen fixing shrubby tree with uses in erosion control, salinity control, bio-mass production, horticultural shelter and (with the K-8 variety) high quality timber production. The tree recovers very quickly from fire damage, frosting, lopping or grazing, and its deep roots give it a measure of drought hardiness. Leucaena prefers a well-drained, alkaline to slightly acid soil (so lime may prove beneficial).

The most valuable use of leucaena is as a high quality cattle fodder tree (it is not compatible with sheep or horse grazing). Leucaena/grass is a permanent, self-maintaining forage system giving high cattle productivity and is of particular value during the nutritional stress period from April to October. Leucaena commands a dominant position in association with grasses, and its inaccessible canopy of leaves enables it to survive even under continuous grazing. Its deep roots allow it to reach moisture and nutrients beyond the grass roots, enabling it to grow even in the dry period.

Experience in Qld points to close planting of leucaena in 5 m rows with pasture between to be optimal. (It has been used successfully with *Panicum maximum*, pangola, *Pigitaria didactyla*, setaria, Rhodes grass and kikuyu). Liveweight gains in steers of 1 kg/head/day over seven months on leucaena/grass have been recorded by the Qld Department of Primary Industry (*Tree Leucaena*, J.H. Wildin, 1986). Similarly, 60 steers grazing 32 ha of 4 year old leucaena/green panic gained an average 80 kg more than 60 steers grazing 123 ha of good native pasture on similar soils.

On a smaller scale, leucaena may be very useful as a concentrate/legume supplement enabling better use by cattle of rough pastures. Cattle feeding on its leaves must be inoculated (once is enough, and only a few need to be done) with an inoculant which detoxifies the rumen from an amino acid (mimosine) found in leucaena. This is available via your local Ag. Dept. Similarly, for maximum nitrogen fixation, cowpea inoculant is recommended.

Leucaena is also valuable to the gardener/orchardist. It is used in commercial plantations in Asian countries as a nurse crop in plantations. Providing light shade, nitrogen and a nutritious litter/mulch, it can be integrated into orchards as a nurse crop or second level shelterbelt. Its deep roots are also

compatible with vegetable gardening.

Peru variety and its hybrid called Cunningham, are the most widely planted varieties. They both branch from the base, particularly if lopped or grazed, and have a canopy height of up to 8 m, and so are ideally suited to cattle grazing. *Leucaena leucocephala* (K-8) also provides excellent cattle fodder, but due to its greater height must be slashed and fed. Also called Giant Hawaiian Ipil-Ipil, K-8 will reach 12 m in 3 years in the Philippines. It produces a fast-growing, high density wood with building, firewood, furniture and charcoal uses. The Filipinos also use it as a cattle fodder (they even pelletise the leaf and sell it), as a source of fertilizer, and as a nurse crop and source of mulch for their food crops.

In tropical areas, along the NSW coast and in other areas where frosts are not severe, leucaena has much to offer. Whether used in the garden, as a high-protein supplement for a house cow, or in a large-scale pasture/browse, this tree should be very widely planted.

For supplies of leucaena, tagasaste and other fodder trees, contact Col Freeman, 'Corinda', Mongogarrie 2470, or see the lists printed in GR 58 and 60.

A useful book on the subject is *Tagasaste: Tree Lucerne*, L. Snook, available for \$10.50 post paid from Night Owl Publishers, PO Box 764, Shepparton 3630.

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## Leucaena Species

Of all tropical legumes, leucaena probably offers the widest assortment of uses. It produces an excellent firewood and timber for light construction. The leaves make an ideal feed for cattle and goats but they should not be fed exclusively on leaves due to their mimosine content. Leucaena will increase milk and meat production if fed correctly. The pods are suitable for humans if eaten sparingly. It is also a useful species to enrich the soil, build up mulch and aid neighbouring plants. Its foliage rivals manures for nitrogen content. Its aggressive root system breaks up impervious soils, and it is an ideal species to pin steep slopes.

Leucaena is killed by frosts and does not compete well with weeds when very young. A rugged, persistent variety (Salvatore) has given it a bad name in some areas where it has become a weed. It should not be planted in horse paddocks because of the mimosine content and it will be toxic to ruminants if eaten in EXCESS amounts. The variety *L. cunningham* has the lowest mimosine content and is best suited for forage, being the lowest growing variety of the types available.

From *Tree\$ for the Back Paddock* by Nan Oates and Brian Clark, a 300 page book on the ecological and economic justification of trees on farms. Available from Night Owl for \$27.50 posted.

# Home Wine-making

## an ancient tradition

by Leo Peterson, Kurrajong, NSW.

Last issue we were introduced to the delights of *Making Fruit Wine* ('it's amazingly easy and makes excellent use of the annual fruit glut . . .') by a Victorian reader. The article also listed the basic tools and the steps involved in making a simple wine. Here Leo Peterson shares his experiences with this ancient craft, plus several of his favourite recipes.

My introduction to home wine-making took place in England, through Boots the Chemist, from cans marked 'Dry Red, ready to drink in three weeks', as well as 'Apple' and 'Blackberry'. It was 1983, a very good year for instant wines.

They weren't bad, maybe a bit young but at 3 pounds a gallon much tastier than the off-license wine at 3 pounds for a bottle of thin Moroccan red. Such calculations were necessary because my wife, youngson and I were living well beyond our means in the Cotswolds, near Cheltenham.

After that year off from our Sydney jobs we abandoned the suburbs and moved to the mountains. Encouraged by my wine-making success in England, and with a fine crop of dandelions in the ¼ acre backyard of our new home in Kurrajong village, I completed my first harvest of locally grown produce. In the process, I got to know my new plot of ground before submitting it to the power mower.

My notes for this first vintage read:

Dandelion (1), backyard flowers picked early Nov 83, green bits included — 2 quarts (2.3 lt) flowers, 1 orange, 1 lemon, 2 litres (3½ pt) water, 1½ lb (680 g) sugar, 1 teaspoon all-purpose wine yeast. Made 2 litres. Fermented. Racked Dec 2nd. Racked Dec 21. Added egg white beaten in a little wine to help clear (¼ of egg white). Cleared Dec 26. Bottled using corks boiled briefly to soften, forced in by brute strength. Much bad language. Jan 11, one bottle seeping. Re-corked. June 10, 84, opened first bottle. Excellent golden colour and taste.

It really was a superb wine, and made entirely from flowers picked in my little backyard! From that first glass of summertime nectar sipped in front of a winter log fire, I acquired a ravenous appetite for experimentation. The single recipe book I possessed on home wine-making leaned heavily towards the use of chemicals and somewhat obsessive procedure. Gradually I obtained more recipe books, all of them of English origin and most of them out of print. What appealed to me about the older publications was that they didn't mess around with too many additives, nor did they fuss about measuring this or that with the sort of manic precision I found in most modern wine-making books. I also acquired, with some difficulty, three clear glass gallon demi-johns — these are almost unobtainable now in Australia — and several brown glass ones, which are available because whisky is still transported in these from Scotland.

I blundered cheerfully along and among my wine successes were notable failures. The parsnip wine never quite mellowed, nor did the beetroot, even after a year in my workshop cellar, and they are still down there sulking. But among these rare disappointments — which might still come good — I was becoming familiar with the locally grown products for making the best varieties of red and white wines. To my palate, and

my wife's, these more than rivalled the best commercial product. Not only is the wine delicious and beautiful, the gallon jars have added colour and life to the kitchen. And perhaps most importantly, having discovered the best local fruits for our taste in wines, we are now totally self-sufficient as far as our personal needs are concerned. The processes are enjoyable and immensely rewarding and the wine costs the tiniest fraction of the commercial product.

With regard to cost, corks are an expensive (25 cents each) if necessary item and in my experimentation I've had good results with used corks that haven't been pierced right through. Sterilize them with sodium metabisulphite, wash them thoroughly and boil them for 5 to 10 minutes. One recommendation — buy a proper bottle corker. These are not expensive. For \$5 I bought a plastic one that doesn't require great strength. The other equipment is simply acquired as you go along.

Since beginning my wine-making, I have made wines from a huge variety of fruits, flowers and vegetables. Initially I kept notes, but as the processes were all more or less similar, I have improvised with less and less fuss about procedure, keeping in mind only the need to use clean materials aimed at producing a clear wine.

In no particular order, beginning with my beloved 1983 Kurrajong Dandelion, I have made many different sorts of wine: pea-pod, elderberry, blackberry, bramble-tip, crabapple, carrot, quince, beetroot, orange, apple, grape, apple blossom, citrus, orchard, tea, bread, mandarin, parsley, peach, pear, plum (all types, blood plum being the best of the red), potato, pumpkin, rhubarb, rosehip, tomato, barley and cumquat. What is astonishing is not the variety but the fact that I've only just begun my journey through the wine-making potential of the district.

### BASIC PROCEDURE

My favourite wines also happen to be the varieties that are easy to make. They are a full-bodied red, a rose and a moselle, which, depending on its mood, can turn out as a superb riesling or a crisp chablis-type wine.

### Blackberry Wine

- 1½ kg (3½ lb) blackberries
- 1½ kg white sugar
- 5 litres (1 gal) boiling water
- 1 tsp all-purpose wine yeast

Wash the berries and place them in a good-quality plastic bucket. Pour the water over them and stir well. Cover, and allow to stand for a week, stirring daily. Strain (I use a clean colander then a kitchen-type sieve) onto the sugar and add the yeast. Cover and stand in a warm place until the initial fierce fermentation subsides. This would be 5 to 7 days. Pour into a

fermentation jar with an air-lock and leave until fermentation has finished, that is, when the bubbles stop rising. Then rack (siphon off the clear fluid) into another jar and allow to stand and clear. Bottle and cork. Keep six months before drinking.

This makes a sweet wine. For a medium wine, thinly peel a lemon and add the peel to the berries at the outset. When straining the berries, add the lemon juice to the sugar.

#### Rhubarb Wine

- 2 kg (4½ lb) rhubarb
- 2 kg white sugar
- 5 litres (1 gal) cold water
- 1 lemon
- ¼ kg (½ lb) sultanas
- 1 tsp all-purpose wine yeast

Cut up the rhubarb into a plastic bucket. Pour over the cold water, cover and leave for a week, stirring daily. Squeeze and strain the pulp onto the chopped sultanas, sugar, thinly peeled rind and lemon juice. Stir well to dissolve the sugar and add the yeast. Cover and allow to ferment for several days, then pour into jar with air-lock and allow the fermentation to complete. When it has stopped, rack and allow the wine to clear. Bottle and cork. Give it six months before drinking.

#### Tomato Wine

- 3 kg (6¾ lb) ripe tomatoes
- 1½ kg (3½ lb) white sugar
- 5 litres (1 gal) boiling water
- 50 g (a thumb-sized chunk) bruised ginger root
- 1 tsp all-purpose wine yeast

Cut up and mash the tomatoes, add the well-bruised ginger and the sugar and pour on the boiling water. Stir well and allow to cool, then add the yeast. Cover and leave, stirring daily for a week. Strain into a fermentation jar and when the fermentation has finished, rack and allow to clear, then bottle and cork. This wine has to be left for a year before drinking. If you do get tempted to taste it before that, don't be disappointed because 12 months seems to be mandatory for tomato wine to mature.

If you cannot obtain gallon jars, then the 2 litre clear flagons will have to do until you can get the bigger ones. In fact, I recommend a modest beginning of 2 litres for each wine. Just halve the ingredients. Later, as your interest increases, your volume will increase with your confidence. Obtain a wine-making book and don't get put off by the technical nonsense some of them go on with. After all, wine has been made by man for thousands of years. You will learn as you proceed, and mostly you'll learn from your success in mastering this great tradition of making your own wine.

A useful little book on this subject is *Home Winemakers Recipes*, by D. McKechnie. It is available for \$6.50 posted from Night Owl Publishers, PO Box 764, Shepparton 3630.

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## They didn't take the kitchen sink — but we forgot the shutters!

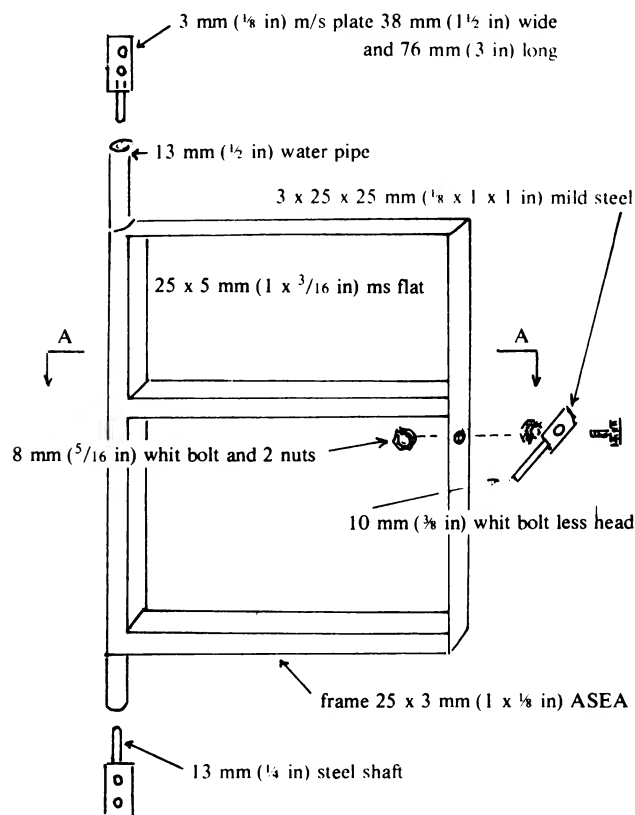
With sincere and abject apologies to Christine Taylor and to all readers who have been looking for the sketch of the window shutter which was supposed to accompany her article (GR 64, p. 39) here it is.

To make up for the inconvenience we caused by this oversight, we have reprinted here Christine's description of how the shutter operates.

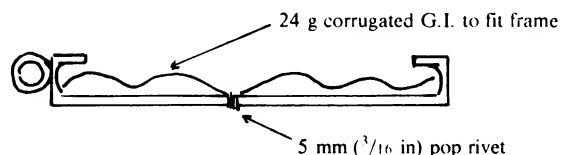
The shutter frame is welded to a length of 13 mm (½ in) water pipe with 13 mm (½ in) steel pins top and bottom on which it pivots. These pivot pins are secured with two coach bolts into the frame of the shack. There is a pivoted bolt on the other side that goes through the wall and has a steel nut wound on from the inside when it is shut. When it is open the shutter is held open with a hook and eye.

Fig. 1. Construction of the shutters.

Steel frame of shutter welded to length of water pipe before the iron cladding is attached.



section A-A



# Bringing Up Baby Cheaply

by Vicki Judd, Nunawading, Vic.

Five months ago Jim and I were blessed with the arrival of a beautiful, healthy baby boy. Christopher Leigh weighed 9 pounds 5 ounces and was 21 inches long, had blue eyes and a mop of dark hair. Dad was present through the labour and birth, and even got to have the first cuddle — beautiful to see.

As word spread, gifts began arriving. My sister gave us a cupboard that had been used for her four babies, and before that by our mum. A girlfriend turned up with a colonial style rocking cradle and a beautiful cane carry basket with all accessories, a box of baby clothes and some toys. Another girlfriend provided me with a cot, inner spring mattress and linen, all for \$15.00. I received a quilt as an arrival gift.

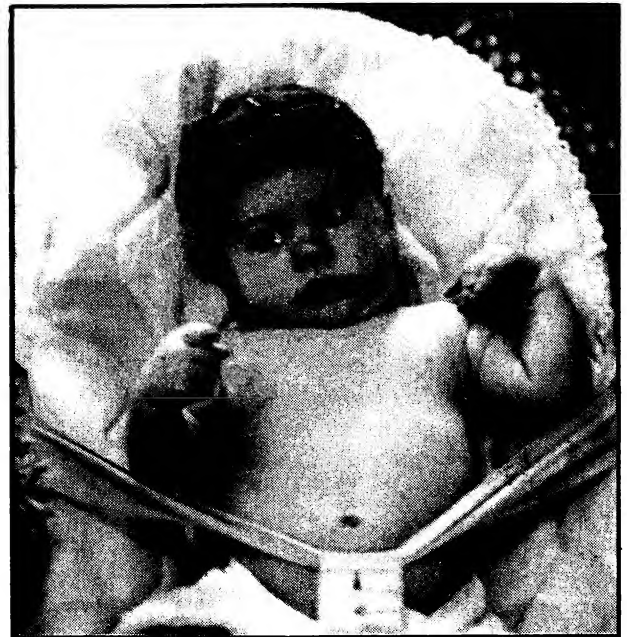
I ended up with two prams: one I bought for \$15.00 at an op shop, the other my mum bought for \$12.00 at a garage sale. Also from my parents came a solid pine change table, bought brand new at an auction for all of \$5.00! For pram sheets, by the way, I use pillow cases, which fit nicely. The girl I bought the cot from has since given me a high chair which originally came from an op shop. Speaking of op shops, I bought my bouncinette at one for \$2.00, and got some singlets for 5 cents each and baby nighties for 50 cents each.

I bought a few items of clothing, mostly in larger sizes, like the denim overalls I bought for \$12.00 instead of \$28.00 at the Vic. Market. I did a bit of knitting, but friends and family gave us lots of clothes and teddy bears when Christopher arrived. That, along with the fact that my girlfriends and some relatives have got babies, and pass things on, means that I've got clothes up to size 2 put away.

Christmas meant more toys. Rattles and a baby book I got for \$2.00 each instead of \$3.95 when one of the breakfast food companies had a special offer. He also got a beautiful felt mobile. I'm buying him Mr. Men books and Little Golden Books, all under \$2.00 each. I don't mind spending on books, as he already takes interest in them, watching the picture intently as I read to him.

The creams and lotions needed for changing bottoms have all been free, too. I came home from hospital with two small bottles of one brand of lotion, a sachet of another and a tube of cream supplied by the maternity department, plus a bag full of samples of more creams, lotions, baby foods and books which was left for me while I was in the labour ward. I also sent away for the free samples advertised in all the baby books from the health centre and in the bounty bag, as well as being presented with a box full of samples while in the chemist one day. I haven't had to buy nappy change lotion yet.

After arriving home from the hospital, Christopher refused to be breast fed, and rather than facing the trauma of a screaming, fighting baby, I eventually gave in and bottle fed, which I regret having to do, but as I had no choice, I have to live with it. I've found, however that even with formula and now baby food, the price varies enormously from one shop to another. With the solids it doesn't bother me because I cook my own as much as possible, but the formula can be anywhere from 25 cents to more than a dollar different.



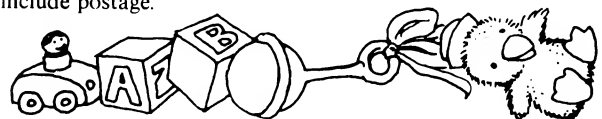
Baby Christopher relaxing in the bouncinette we obtained for next to nothing from the op shop.

The bottles I feed Christopher from have a varied history. I bought one years ago when I first thought about having a baby, one after getting pregnant and Mum bought me a couple at a garage sale. I boil them rather than use those chemical sterilisers, as it's quicker, cheaper and it smells better. His feeding bowl and cup were a gift from a friend, while his baby spoons were one of those special offers from a baby food company — you send labels and get two free spoons, so I did.

I've found that having a baby is a wonderful way to use up all those odd bits of wool that are left over from the knitting and crocheting I do for us and for others. I'm making him an afghan rug for his bed, and his jumpers are striped or have colourful patterns on them, or are knitted from balls from the discount box at the local wool store. I've even unpicked jumpers from the op shop and reknitted the wool. I've used it for his afghan, a jumper, toys and hats.

Please don't think from what I've written here that we're cheap or that we grudge Christopher anything, because that's far from true. It's just that we were on the dole or on only one income so we did the best we could, and will continue to do so. It's surprising what can be done with limited funds and lots of enterprise, not to mention the help of precious family and friends.

A useful book for those wanting to save money on children's toys is *Toys to Make*, S. Esdaile and A. Sanderson, \$12.95. Order from Night Owl Publishers, PO Box 764, Shepparton, 3630. Please include postage.





# Natural Summer Beauty Tips

by Blackmores Communication Service, Sydney, NSW.

Sun, wind, humidity, chlorine, salt (from perspiration and the surf) all seem to threaten our bodies during the sizzling months of summer. Try some of these easy tips and you will find the hot months to be a breeze when it comes to your own personal beauty needs.

## SUMMER HAIR PROTECTION

To restore shine, body and sleekness, removed by sun, wind, and dry heat, blend one whole egg, one tablespoon mayonnaise, two tablespoons olive oil and the juice of one half lemon. Massage into dry hair, cover with a warm towel and leave for one or more hours. Lying in the sun can produce a hot oil treatment effect, but be careful not to cook the egg into your hair! Shampoo twice with marshmallow shampoo, rinsing well each time. Squeeze the remaining lemon half into two cups of cool tap water and run through the hair after the final shampoo rinse.

Swimming and sunbaking can make even the healthiest hair lose its lustre quickly. Slather the hair ends with apricot, avocado, coconut or sesame oil. Wrap it in a hot towel, then lie in the sun for your normal length of time. The outer shingles protecting each strand of hair open with the heat, letting the nourishing oils penetrate your hair. Shampoo and rinse as usual when your time in the sun is over.

Heat can stimulate oil glands, leaving your hair oilier than at any other time of year. If you have this problem, mix one half cup of skim milk with one teaspoon of sea salt and rub it into your scalp. Let it dry thoroughly for about one hour, and then shampoo with nettle shampoo and rinse well.

Salt and chlorine are definitely evildoers to brittle hair. Carry a bottle of mineral water with the juice of half a lemon or two tablespoons of apple cider vinegar added to it. Pour this over your hair when you emerge from the surf or swimming pool. Wet hair fresh from the pool or surf can be combed gently but should never be brushed. Dense, sharp bristles can yank your hair out by the roots, or cause the ends to split. Use a large comb with blunt, widely spaced teeth.

Perspiration is also a no-no for hair, shrinking the hair shaft and causing salt to collect on, and break hair as the water evaporates. So try the bottled mineral water trick above after heavy exercise. Don't wear a hat that is too tight, especially if your hair is chemically tinted or coloured, because perspiration causes hair to discolour. Tinted, bleached or coloured hair should be carefully protected from the sunlight as it can wind up a completely different colour than the one you had intended. To prevent this, wear a loosely fitting hat or cotton gauze scarf to shield the hair from the elements.

If you wash your hair more than once every three days, lather up just one time instead of the usual two. Excess shampooing can dry the hair and, when combined with exposure to the sun, can cause hair to become very brittle. For excessively dry hair try an almond and milk shampoo, a gentle formula which helps repair damaged hair and brings it back to a silky softness and sheen. Always follow each shampoo with the use of a conditioner, preferably one

containing a herb such as chamomile. Chamomile is the traditional herb for soothing and brightening hair, so it is ideal to use at this time of year, when your hair most needs this extra conditioning treatment since it is being constantly depleted by normal summer activities.

## SUNBURN RELIEF

Sunburn can be avoided with planning and liberal application of sunscreens. However, if you choose to ignore the warnings about dangerous sun side effects then you will no doubt wind up with a mild or severe burn. In this case, any of the following suggestions can help but be ready for the 'big peel', for it is almost inevitable that your totally dehydrated skin will shed as the new skin underneath comes to the rescue. We strongly recommend, of course, that you do not be careless in your exposure to the sun, because of the proven longterm risks of skin cancer and premature ageing. Try any of the following to relieve sunburn.

- Generously dust mild talcum powder or cornflour over parched areas to soothe and prevent chafing.
- Pour a bottle of mineral water and vinegar over soon to be red skin to desensitise the area and keep the skin hydrated.
- Rub black tea over the burnt area. The tannic acid in it helps kill the pain but will not affect whether you tan or burn.
- Pour two tablespoons of apricot oil into warm water (about body temperature), soak for about ten to twenty minutes, then pat the skin dry with a soft towel. Lightly massage a lavish amount of vitamin E cream over the burnt area, follow with a good lubricating body lotion such as one containing evening primrose oil, or a soothing application of oil such as apricot kernel.
- For mild sunburn rinse the face and body with lukewarm water. Slather refrigerated mayonnaise over the burnt area, then lie down for 10 to 20 minutes. Rinse off well. The cool mixture of egg and oil brings instant relief as depleted oils return to the skin, and helps build moisture in surface cells.
- For more serious burns, blend one part pure aloe to two parts mayonnaise and follow the above procedure (pure aloe juice may be available from your health food store or chemist).
- Vitamin E, when applied to the skin in large doses, can lower your outside body temperature, reduce pain and work to prevent peeling and blistering. For a particularly bad burn — such as nose or ears — pierce a vitamin E (500 i.u.) capsule and apply the contents.

## SKIN SENSE

Replenish moisture supplies in the facial skin after excessive sessions in the sun by blending one tablespoon of butter with two tablespoons of fresh milk. Gently massage into the skin. Leave this mask on for as long as possible before rinsing with cool water.

If your skin becomes oilier as the thermometer goes higher, squeeze the juice of half a lemon into a cup and a half of water. Put cotton balls saturated with this solution into a plastic bag and you have instant shine control when swimming,

during sports or whenever oiliness and perspiration are a problem. You could also try keeping your witch hazel toner in the fridge during summer time. Splash all over the body or apply with a moistened cotton pad to refresh and cool your skin. Oily skin can be refreshed after a long hot day by smoothing a generous portion of chilled plain yoghurt over sun exposed areas. Rinse well after 15 to 20 minutes.

Sunshine may help a particularly blemished skin by stimulating the growth in outer cell layers. The constant shedding helps keep pore openings free of blockages and less vulnerable to infection, although it does thicken and toughen the outer covering of already rough dead cells. To remove dead scaly skin cells, puree half a pawpaw (with the skin but without the seeds) in a blender. Spread generously over the dry scaly areas and let dry for 20 to 30 minutes. Rinse well with a rough sea sponge or loofah. Try gently buffing the facial skin surface to remove impurities. In the summer time, use a deep cleansing exfoliant containing ingredients to buff the skin and remove dead cells, plus flower extracts to give the skin sheen. Another sure-fire recipe for removing dead cells is to blend one cup of sea salt with three tablespoons of wheatgerm oil. Gently massage this mixture over rough surface skin. While dead cells are eased away, essential oils will be added to bring back a glow to lacklustre complexions.

To refine and even a splotchy tan, combine the juice of one lemon with a quarter cup of milk. Blend to form a paste of medium thickness, then spread liberally over tanned areas. Leave for 20 to 30 minutes, then rinse well with cool water.

Hot water dehydrates the skin, taking essential moisture from the body through the relaxed pores. So don't make summer baths and showers too hot and try to limit them to 10 minutes maximum. Soap should be used sparingly during hot weather as it can strip protective oils from the skin's surface. Stay away from harsh deodorant soaps or those with heavy fragrances when going into the sun as they can cause permanent skin discoloration. A gentle marshmallow soap should be substituted for your ordinary toilet soap. Always follow baths and showers with a smoothing moisture-building body lotion, such as one containing evening primrose oil. Massage over slightly damp skin to hold in extra moisture.

Keep a pumice stone in the bath or shower and rub it regularly over calloused feet to keep them soft, smooth and pretty. Dry, rough feet, so obvious in casual summer sandals, can be revitalised by rubbing a tablespoon of mayonnaise into each foot before bed time. Cover with lightweight cotton socks and rinse off any excess in the morning. Repeat for one week and you will notice a definite improvement in the way your feet feel and look.

Wet clammy hands can be a problem during the summer months. After washing and drying your hands, lightly sprinkle cornflour over the palms. Spritzing with witch hazel toner also works well. To protect hands from wind, sun and salt, use a calendula hand cream. Your hands will feel as if they have an invisible layer over them, yet they will be free of oil or any other slippery sensations.

Refresh eyes and help reduce dark circles (caused by all those late night summer parties) by placing cooling cucumbers or potatoes fresh from the refrigerator over the eye area for 20 to 30 minutes. The relaxation that this demands will help too.

You can cool and refresh heat-worn skin by lightly patting an ice cube over your just applied makeup. The cold moisture sets your makeup to a fresh dewy glow — however, be careful not to use this technique if you have an excessive amount of broken veins in your cheeks.

Information courtesy of Blackmores Communications Service, 23 Rosebery St, Balgowlah 2093. Blackmores produce a wide range of natural herbal products which are available in most health food stores and pharmacies.

## PEST CONTROL AND BEES

If an insecticide must be used while bees are pollinating, pyrethrum is recommended rather than rotenone. Even though it is more toxic to bees, pyrethrum breaks down faster — within 6 hours if the temperature is 13=C (55=F) or higher. As a general rule, don't spray anything on your plants or trees while they are in flower. If you must spray, use a liquid formulation of pyrethrum or *Bacillus thuringiensis*, which affects only caterpillars. Spray at dusk when bees are least active. If a heavy dew is predicted, don't use pyrethrum — it won't break down before the bees begin feeding in the morning. Diatomaceous earth is lethal to bees — its sharp crystals pierce their bodies, causing them to die by dehydration.

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# FEEDBACK ON SOLAR SAFETY

## A Point Taken!

by Peter Laughton, Albion Park, NSW.

Following the article on solar power that I wrote for GR 59, I've received several letters from all over, ranging from abuse to praise, even to people asking for a free design service for their own systems. (I don't mind, but a stamp is a help.) At least I've encouraged discussion.

The point regarding the bench grinder is taken, but I would like to mention that it, along with the electric drill, spray gun and other equipment, was only being stored in the generator house at the time as the main workshop was not yet constructed. The equipment was taken outside to a work bench next to the generator house (out of the picture) to be used. It is interesting to note the comments regarding the hazards, as I've been involved with exploding batteries and the average person does not even realise the damage that they can do. (Every amp hour is approx equivalent to 1 kg of gelignite if all the energy through electric to gaseous is expended at the same time.) Technically, the power inverter, switchboard, generator, and fuse gear should also be installed outside the room, or made 'intrinsically safe' or 'explosion proof'. This is done in coal mines, making a pathway within the equipment that controls the release of gases in the event of a fault and cools them below the ignition point of the vapours or dusts present. In coal mines powdered limestone is used to

prevent dust buildup and a possible explosion from coal dust. Of course, other gases are also present. Locomotives and other diesel powered equipment have exhaust scrubbers attached to drown sparks in water.

I am guilty of perhaps oversimplifying the description of systems too much for some people and therein running into the difficulty of giving simple explanations that are not quite right, but make it easier for a non-technical person to follow. I should also have mentioned the dangers of hydrogen and oxygen buildup in a confined space, as well as noting that there is a standard for battery rooms with respect to size of ventilation openings, spacings from walls, roof height, number of air changes per hour, and so on. My battery room is about twice as big as the minimum, with about 6 times the minimum ventilation (no window glass in the top frame, vents around the base and walls, roof not sealed).

Finally, there was only a limited amount of space in the magazine and there is so much data one can write about that I can only apologise for not mentioning all that is associated with the scheme. Any constructive comments are very welcome and I sincerely thank all of you who pointed out my omissions. Between us, we'll get it right!

## A Health Hazard

by Ken Underwood, Coominya, Qld.

In such an interesting magazine, with such a wide variety of subjects, it is understandable that some of the information in some of the articles is occasionally incorrect, but some of it is positively a health hazard. In the article titled 'A Solar Alternative' (GR 59, p. 43), the photograph shows a potentially very hazardous situation. Batteries, whether used in a solar system or anywhere else, give off potentially explosive gases when being charged, and you should never have a possible source of ignition near a charging battery. Yet there in Peter Laughton's setup is a bench grinder next to his battery bank, which is definitely not a safe arrangement at all. An exploding battery is something we could all do without experiencing — the explosion is not usually too violent, but the acid could do very unpleasant things to the human body. I would like to point this out to other readers before someone tries a similar setup and has a nasty accident.

I have lived with a slowly expanding solar system for 4 years now, and have come to learn the ins and outs of such a system. A lot of it was by trial and error, as it seems difficult to get answers from most companies in the business; living with a solar system soon teaches you what you can and cannot use. Solar powered electricity would not suit everybody, but it suits me and I would not change to the mains grid, even though it now runs past my front gate.

## A Potentially Dangerous Setup

by Mal & Jan Eggins, Gladstone, Qld.

We would like to point out a potentially dangerous situation that hopefully will be rectified before some readers try to copy the same setup.

On page 43 of GR 59 there is a photo of some wet cell storage batteries, with a grinder on the same bench. As a grinder will produce sparks when grinding steel, and batteries release a volatile gas, the sparks can and will blow up a battery, showering everything and everybody within range with acid. We have seen a tractor battery blow its side out from sparks igniting the gas released at the top. Luckily nobody was near enough to be hurt by it.

We are going to have our own generator, so we were very interested in the rest of the article. Any further information (with appropriate safety warnings) on this subject would be a great help.

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### Use Water Wisely — Recycle It

What happens to your washing machine water? It goes straight down the drain — why not recycle it onto the garden? Don't use hot water, mix the soapy water with a little of the rinse water, and it is great for lawns, vegies, pot plants, anything. But do put it straight onto the soil, avoiding foliage, and rotate waterings of washing machine water with fresh water, Don't use it if you use detergents in the wash.

# Make Yourself a Back-pack

by Jose Robinson, Wild Cattle Island, Qld.

The modern day swagman has only fairly recently gained prominence in Australia. Back-packing as a tourist industry has suddenly taken Australia by storm, particularly in Queensland with its mild winter weather. Back-packers, often international travellers, are people who wish to travel on a budget in order to gain the most for their dollar, and it is certainly a viable alternative to de luxe tourist travel.

Springing up everywhere now are realistically priced hostels geared especially for budget conscious back-packers. This type of travelling has become a lifestyle for many, and they cover an enormous amount of territory. They see and do more, at a fraction of the cost. Thoroughly independent travellers, they travel singly or in small groups, relying mostly on coach travel and walking to get around. Backpacking, according to its proponents, is as much about making friends as it is about seeing the countryside.

Apart from good comfortable footwear, the next important piece of equipment necessary is a good back-pack in which to carry all the essentials. Commercially manufactured back-packs are readily available in stores at a cost, but why not make your own at home? It will be a portion of the cost, and often a stronger job into the bargain. My first back-pack (made in Taiwan) fell apart at the seams after one washing. It was then I set about designing better and stronger ones. The size pictured here is not too bulky or heavy to carry on one's back, and with the extra pockets for smaller items or things which you need at the ready, it does the job quite efficiently.

## MAKING THE BACK-PACK

### Materials

My back-pack cost me nothing, because I made it from materials which I already had around the house. Canvas is much too heavy, so I used a metre of an old sail which had been previously cut into for something else. Shoulder straps may be made from the same fabric, with a little foam padding inside for shoulder comfort. I used 3 cm (1½ in) width nylon strapping because I had some on hand. Each of the two straps needs to be approximately 75 cm (30 in) long. If you will be wanting to lengthen or shorten the straps, allow 10 cm (4 in) more for each one. Also you will require a suitable buckle for each strap. If you are simply making the back-pack to suit your own size, then you can dispense with buckles for adjusting the length of the straps.

**Sewing cotton.** Ordinary sewing machine cotton is satisfactory, providing you double stitch all seams.

**Fastening.** From my own experience, if you are going to use your back-pack anywhere near salt water or sand, then zip fasteners are a dead loss. They invariably corrode and won't work. Even though the teeth of the zip may be plastic, the metal slide is the trouble-maker. So I prefer a 'flap over the top' style with 2 buckles and straps as fasteners.

**Pockets.** For the pockets, I fasten in the same manner. For the back-pack pictured here, I did use a 49 cm (19 in) heavy duty zip for the top opening, and aluminium buckles on the



Jose wearing a back-pack made from an old sail.

straps for the pockets. For later models, and larger ones, I made them flap over the top with two buckles to fasten.

### Cutting Out

First cut a pattern in paper to the size back-pack you require. In that way, you will not spoil your cloth by cutting too small. Try the paper pattern up to your back, or a friend's back. This gives you some idea of size. I made mine 45 cm x 35 cm (18 x 14½ in). If you are putting a zip fastener in the top opening, then you cut two pieces the same size. If you wish to have a flap over the top style, then you must allow about 20 cm (8 in) more for the back piece.

**The gusset.** This can be 10 cm (4 in) wide. The length is arrived at by measuring down both sides and along the base, plus an allowance of about 5 cm (2 in) side flap to tuck in at each side of the top. For the zipper-top style, simply measure completely around the four sides of the front piece and allow a little extra for seam. You may prefer to cut the gusset as two separate strips (each strip the full length and half the required width, plus seam allowance) for this style, so that you can sew the zip between these two strips. This means you can use an extra long zip for easy access to the bag.

**Pockets.** The two pockets and their flaps and gussets may now be cut out. Make the pockets to cover the full width of the back-pack, and as deep as you require. Allow about 3 cm (1½ in) width for the gusset. Gussets are necessary, as flat pockets drag and bulge.



### Sewing Up

The two pockets and their flaps should be sewn onto the outside, before you attempt to sew up the bag, otherwise it is rather difficult to get to them later. Next sew the top zip into the main gusset, and stitch the gusset to the front and back to form the bag, using double seams. Alternatively, if you are wanting the flap over the top style, then stitch the gusset around three sides only, leaving the 5 cm (2 in) each side at the top for side tuck-in flaps. For this style sew on two straps and buckles with suitable double piece behind for reinforcement. When the pack is loaded to capacity, there is considerable strain on the fastenings, whether they be buckles or zips.

**Shoulder straps.** Finally the shoulder straps are attached. Choose a central spot at the top of the bag nearest the body, and sew on the two straps with an extra reinforcement piece of fabric on both the outer and under sides. Then sew the other end of the straps on either side near the base, about 5 cm (2 in) from each bottom corner. If you've made the straps from the same fabric, insert a strip of foam padding about 20 cm (8 in) long in the actual shoulder section and sew in place.

**Reinforcement.** If you have small pieces of vinyl or soft leather, this makes a good reinforcement where the straps are sewn on. The base of the back-pack will also give longer life if a piece of vinyl or leather is sew in with it, on the outside.

### MAKING AN EMERGENCY BACK-PACK

If you are away from home, and need to carry something on your back, leaving your hands free, then temporary emergency gear can be brought into use.

#### Back-pack from Jeans

A pair of jeans can be tied at the bottom of each leg with some rope, allowing sufficient rope to come around each side and join together with a knot at the waist band. You can stow quite a lot of gear down each leg, then it is worn as a ruck-sack on the back (figure 1).

Fig 1. Jeans

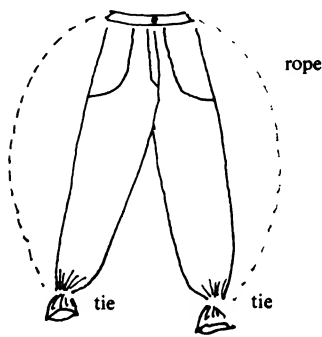
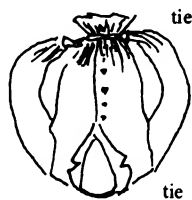


Fig 2. Long Sleeved Shirt



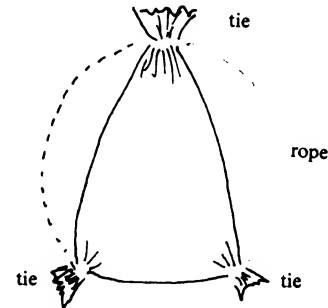
#### Back-pack from a Longsleeved Shirt

Do up front buttons then tie the neck together with cord or rope. Turn upside down, and fill the gear inside the shirt. Now tie the cuffs together tightly to the bottom of the shirt with another piece of rope. Worn upside-down and with the long sleeves acting as shoulder straps, this temporary ruck-sack will leave your hands free if you are climbing (figure 2).

### Back-pack from a Sack or Sugarbag

With two pieces of rope or strapping, tie one end of each to a bottom corner of the sack. Tie the other end of each rope to the top of the sack, after filling it with your gear. This now becomes an emergency back-pack (figure 3).

Fig 3. Sack



Good luck with your back-packing!

### Herbal Moth and Insect Repellent

Make a mixture of 4 parts dried, crushed sweet marjoram, 2 parts dried thyme, 2 parts dried, crushed basil, 1 part caraway seeds, 1 part dried lemon peel, 1 part grated nutmeg.

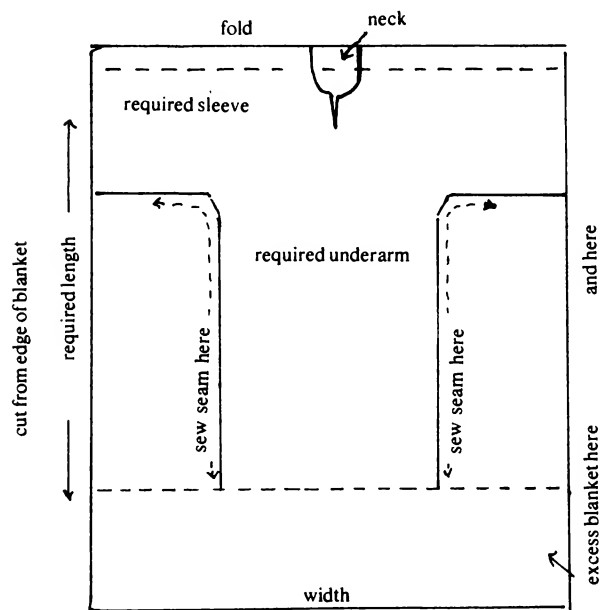
Sew into sachets and place in cupboards and drawers.

### A Further Farran

by Vera Regan, Busselton, WA.

I was interested in L. Marold's item on how to make a farran (GR 59). Whilst I appreciate that this was made from the traditional style, a much simpler version can be made from a blanket, where only two seams are needed.

Measure the length required from shoulder to hem and fold the blanket to give this length. Likewise measure length of sleeves from one outstretched hand to the other and allow generous width at underarm. It is quite possible that by using the traditional method, a second farran can be made from the leftovers, but some readers may prefer this version — more extravagant but simpler to make.



# PUREBRED POULTRY BREEDING

by Owen Frost, Canterbury, NZ.

Until four years ago I was one of the last purebred breeders supplying six week old pullets around the South Island (NZ). I still retain a few birds of five out of the sixteen breeds I used to have, though changing government policies have forced me to give up on a business scale and settle down to just the self-sufficient lifestyle which we have now.

My first few years were spent gathering up the remnants of these old purebreds. Buying in birds brings every disease under the sun and for a long time I had a new disease to cope with each year. I quickly realised it was important to breed on a proper stud basis, breeding my own male and female lines and shutting the gate to everything coming in. However this means a lot of pens and a lot of roosters, as at least three breeding pens are required for each breed kept. This checked some diseases, but mareks disease, bronchitis, fowl pox and leucosis still remained a problem. Using a strict vaccination program to control this became an expensive part of the business, as the vaccines were not available in small quantities and they had to be used within hours of being opened. While only a few birds were on the place the disease problem was minimal, but by the time I had four hundred breeding hens plus over sixty roosters, as well as young stock, these problems were becoming a financial worry, as well as a breeder's nightmare in a small business on one acre of land.

Information and help was gathered from the MAF, the Poultry Board, Lincoln College, old poultry advisors and present day commercial poultry farmers. The answers were generally all the same: more vaccines, increase commercial feed and dig a bigger offal pit!

One day, while visiting a commercial farm, I noticed a

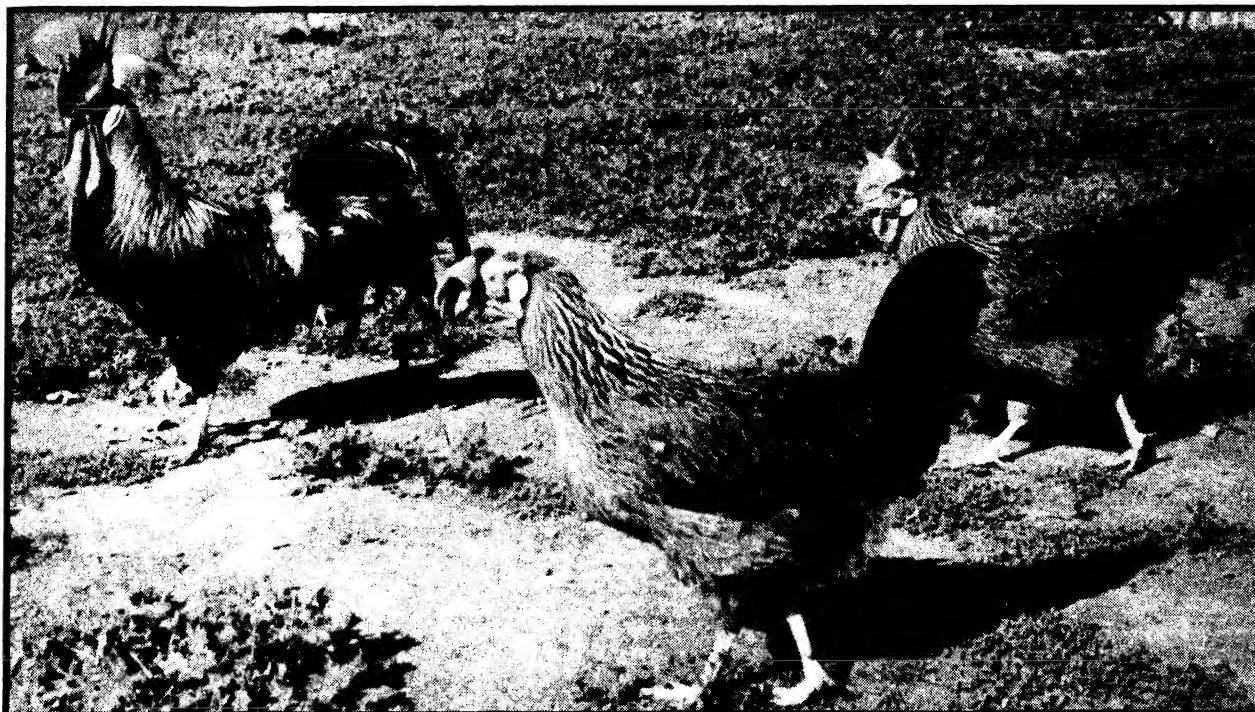
wagonload of dead fowls being removed from a shed. After remarking jokingly about not picking up the 'deadies' very often, I was bluntly told that that was just the usual daily tally. By comparison my effort wasn't so bad, but I felt certain I could do better than that. I spent considerable time studying old poultry books, in the end deciding to make my own feed. I knew a change of food would lower my egg production, but health was going to have to come first.

I worked out a recipe without the use of any commercially produced mash or pre-mix additives. Within a week of starting to feed this mixture, my poultry had stopped dying. I have never lost any since from these main diseases, and I have never vaccinated another bird. In my own mind, after studying this for many years, I am certain that over 90 percent of diseases are food related. (This however does not take into account worms and external parasites which must be treated separately and individually.) My poultry were largely kept inside on a deep litter system, with approximately ten to twelve hens per rooster, allowing 0.37 m<sup>2</sup> (4 ft<sup>2</sup>) per bird.

My food recipe is as follows:

- alt ½ handful
- ollard — 6 measures
- meatmeal — 2 measures
- bran — 3 measures
- milk powder — ½ measure
- dried lime — 1 measure
- oyster grit — ½ measure
- crop grit (coarse sand) — ½ measure
- lucerne chaff or dried lawn clippings — 6 measures

The measure in this case is a six cup billy, making a five



A trio of Brown Leghorns, a popular breed some decades back because of their excellent laying ability. They are relatively rare now and have largely been bred for plumage colour at the expense of production, however the hens are pretty and non-broody and the rooster undoubtedly the most spectacular coloured of any breed.

gallon bucketful of mash. This determines the quantity of salt i.e. not enough causes feather picking, too much creates a wet floor litter. Mixed whole grains of wheat, oats and barley are scattered in the litter night and morning.

Fresh clean water is essential: with garlic added it helps avoid the worm and coccidiosis problem. It also helps purify their blood, which in turn helps fight disease problems. Although I am not using garlic at the moment, it was a useful additive. I simply chopped up some garlic and tied it in the toe and halfway up in an old pair of panty hose, then suspended this in a twenty gallon tank of water, controlled with a ball-cock tap. The garlic would last a week. While I was doing this and feeding as I have described, my poultry looked a picture. Showing birds was not really my objective, however I did participate in a number of shows to test the quality of birds I was producing. Many more were purchased from me and then shown in their new owners' names, taking many prizes. My own best effort was to enter thirteen birds, of which eleven were placed. To see other people take a prize with a bird I had bred was always very satisfying.

The breeds of poultry I had were: Australorp, Rhode Island Red, Brown Leghorn, White Wyandotte, Light Sussex, Barnevelder, North Holland Blue, Ancona, Golden Hamburgh, Chinese Silkie, Buff Pekin, Minorca, Buff Orpington, Faverolle, Plymouth Barred Rock and Silver Campine.

My hatching was done with an old electric Gamble incubator which is capable of some very good hatches. Here again the diet of the breeding birds is particularly important. With the original commercial mash I was using, I could only attain 40-50 percent hatching. This last year's hatching, which has now had the benefit of some four years duration of good feeding, averaged ninety percent. Artificial incubation is the quickest way of telling what is right and what is wrong with your breeding poultry. A hen will hatch and rear chicks that you will never bring out in an incubator.

The male birds have to receive extremely good care and attention too. They should be fed separately from the hens to ensure they do feed adequately. To attain the maximum fertility rate in a housed pen of ten to twelve hens requires two roosters which are changed over every twelve hours, with only one in the pen at a time. The reason for this is that a number of hens will only mate with a particular rooster, and some roosters will have their favourite hens. So two are necessary if ninety eight percent fertility is to be reached and maintained for a lengthy season. A rooster in poor condition is not likely to be fertile.

If the hens are fed as I have already described, with a good supply of oyster grit, egg shells should be sound and even, without cracks or bumps. Eggs should be even and only medium sized. This is necessary to obtain well formed chicks; the eggs should also be able to withstand the tumbling of the turning trays in the incubator without being damaged. When commercial mash was fed to my poultry there was a big percentage of 'dead-in-shell', i.e. chicks which have gone full time but failed to hatch. I feel certain one of the main reasons for this was the premix used instead of natural greenstuffs.

The conclusion of this article next issue will cover fertility, hatching, possible causes of embryonic death, brooding, care and feeding of young chicks.

## Lock Up Your Chooks

by Helen Hood, Karragullen, WA.

If you have a penchant for free-range eggs, and keep a few hens for this purpose, take my advice and lock them up securely, these nights. That is if you live within striking distance of the fowl's mortal enemy. For now, it seems is the time when foxes are most active.

I'm an early morning jogger — not a fitness fiend mind you — a gentle 20 minute trot two or three times a week is about my limit. And this was one of those mornings. It dawned clear and bright, with wisps of fog melting into the promise of a brilliant day, polished and sweetened by record rains. Not the sort of day on which you'd expect to witness a violent act. I donned joggers and unchained the dog who took off like a missile, completing 3 laps before I'd reached the front gate. We set a smart pace, turning into a side road bordered by dense timber on one side and paddocks on the other. Trix headed into the bush, nose to the ground, after something! Suddenly I stopped. Twenty-five metres ahead a large fox appeared, bushy tail erect, holding something in his mouth. Then seeing me he turned, placed his bundle carefully on the roadside and loped unhurriedly back into the bush.

On reaching the spot I was amazed to find he'd dropped a large red hen with scaly yellow legs — minus her neck and head. Calling the dog who appeared bloodhound fashion, hard on the fox's trail, I showed her the evidence with a flourish. She examined it carefully, then gazed at me wide-eyed, clearly shocked by this headless spectacle. (Though perhaps she was just making sure she wasn't to get the blame for the crime.)

Our regular route passes a small farm which boasts a fascinating menagerie of animals, and it was a fair bet the poor old girl had come from there. Along with goats and sheep, various domestic fowl, and a galah that screeches and tells you where to go, there are two fat boxer dogs. As usual when we pass, they came out to trade insults with Trix, and on hearing a whistle I changed course, to impart my information. The man of the house greeted me with an armful of wood, and I explained, panting . . . 'I just saw a fox drop a headless red hen on the road — could it be one of yours?' He agreed that it probably was, adding, 'They're always taking our chooks: we lock 'em up at night, but the fences aren't too good'.

Being a practical lass, I made a suggestion. 'It's just over there; why don't you fetch it for the pot — couldn't be fresher'. Did I imagine, or was he slightly shocked? Inclining his head towards the house he stated — 'She wouldn't let me to that. Everything around here is a pet'. I said goodbye and beat a hasty retreat. Obviously his wife hadn't the advantage of my practical upbringing.

The same day I was imparting my fox story to a friend who surprised me by retailing a similar experience. He had stopped while driving, to observe a fox crossing the road with a whole white chicken in its mouth. Which could lead to a brand new joke about 'why did the fox . . .'

However, back to the point. If you keep hens, and particularly if you have a sneaking affection for them, don't take any chances. Lock them up safely these nights!

# It May Have Another Life!

by Christine Taylor, Black Forest, SA.

When the battery in your rechargeable drill suddenly 'gives up the ghost', don't despair. You may be able to give it another life — my husband did just that today. When the battery stopped taking a charge recently, he was expecting to have to buy either a new battery or a new drill. However, before taking either of these drastic steps he decided to give it 'the treatment'.

Secondary (rechargeable) batteries as used in electric hand tools are invariably comprised of a number of nickel-cadmium cells. Each cell will produce 1.2 volts at a current dependent on its physical size, i.e. a 12-volt battery consists of ten cells connected in series. A common fault in these cells is a change in the physical condition of the nickel electrode. Instead of remaining as a plate, whiskers grow from the nickel surface toward the cadmium electrode. The first sign of whisker growth is a reduction in the cell's capacity — the battery does not run for as long on a charge. Eventually the whiskers can grow till they touch the other electrode, short-circuiting the cell completely.

The treatment consists of a pattern of repeated high charge rates. First determine the normal charging current, either from the charging device supplied or from the capacity of the cells. This capacity is normally written on the cells in mA-hours (milliamp-hours) and the normal charging current is 1/10th of this figure, i.e. for a 400 mA-h cell, the charging current is 40 mA for 14 hours (this means that the cell will receive  $40 \times 14 = 560$  mA-hours when charged; the excess takes care of the inefficiency of the conversion from electrical energy to chemical energy). This charge rate is called 0.1C where C is the rated output of the cell. To break down the whiskers and force the nickel back to its electrode it is necessary to subject the cell to a charge of 5C. **IMPORTANT** — this must only be done under the following conditions.

Obviously, the first step is to remove the battery from the hand tool and the next is to determine which cells are good

and which are not. It is most unlikely that all the cells will be affected. The good cells will give a reading of 1.2 volts when tested with a meter, while the poor ones will likely show only 0.2 volts or less. Only the poor cells should be given the treatment. Having found the poor cells, check them for gas vents. These vents are small holes covered by a rubber seal. If there are no gas vents, the cells must be loosely wrapped in five or six layers of cloth in case they explode. After this, set up the charging circuit to meet the following requirements:-

- a constant output of 0.1C.
- an intermittent output of 5C.

This can best be done in the average home or workshop by using a 12-volt car battery and some 12-volt globes. The globes should be selected to match the current requirements listed above, e.g. for our 400 mA-hour cell,  $0.1C = 40$  mA and  $5C = 2$  A (amps: 1 A = 1000 mA). The globes required are therefore 12-volts  $\times$  40 mA = 1/2 watt and  $12 \times 2 = 24$  watts. It may be necessary to use, say, 2 push-bike tail lamp globes in series for the first case and the stop lamp section of a car stop-and-tail lamp globe for the second.

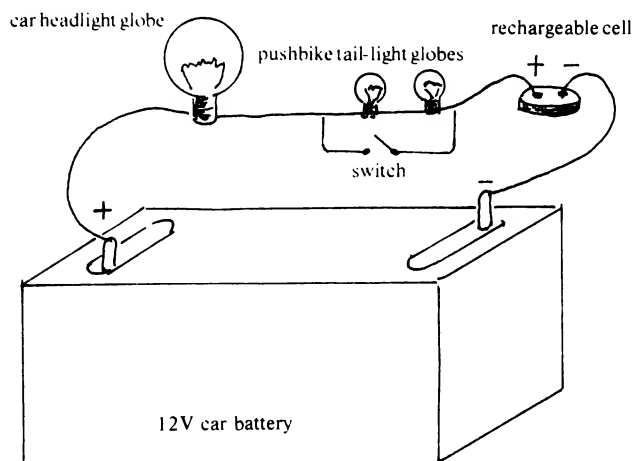
The two globes or sets of globes are connected in series from the positive terminal of the car battery to the positive terminal of the poor cell. The negative terminal of the car battery is connected to the negative terminal of the poor cell (see figure 1). The smaller globe or globes should light up, indicating that the 0.1C charge current is flowing. A voltmeter connected across the poor cell's terminals will show a low voltage (less than 0.2 volts).

After 20 seconds put a short circuit across the smaller globes for 5 seconds. The large globe should light, indicating a 5C charge rate. The short circuit can be applied by using a switch or a clip-lead. If you are lucky, the voltmeter will now show 1 volt or more. If not, repeat the cycle of 20 seconds at 0.1C followed by 5 seconds at 5C until the voltage suddenly rises when the charge rate is returned to the 0.1C setting. Do not give up too soon — the first cell my husband attacked responded after three cycles, the second one took 27 cycles!

After the cell has responded, continue the 0.1C charge for about an hour. During this hour subject the cell to ten or so 10 second bursts of 5C charge. At the end of the hour place a heavy load (short circuit) on the cell for 5 seconds and check that the voltage returns to 1.2 volts or slightly more when the 0.1C charge is resumed. The return to 1.2 volts may take a minute or so. Repeat the one hour charge cycle as above and you should then have a cell as good as new.

The main cause of whisker growth is continual partial discharge, followed by recharging, as happens in normal use. To obtain best results from nickel-cadmium cells they should be completely discharged every three months and then recharged. Really, they're just like us — a good blowout and a new burst of energy works wonders!

Fig. 1. Connecting globes to battery for recharging cell.





# CORD WOOD BUILDING

by G.O'Harae, Stanley, Vic.

A few issues ago, somebody wanted information on cord wood construction. There are a number of American publications on the subject, but I have not read any of them. My introduction to the art was via a friend who dabbled with it, and who supplied me with some basic ideas. I have now completed a 4 x 4.5 x 2 m (13 x 15 x 6 ft) shed which will hopefully provide some shelter for our small flock of coloured sheep, during lambing and after shearing. It may seem extravagant but it does become cold and wet, with occasional snow and late (December) frosts. The following is an account of what I did and where I think I may have gone wrong.

Being close to a large and plentiful supply of timber is definitely worthwhile. If you are contemplating taking your timber from a National or State forest it's advisable to take out a permit rather than just swipe it. Collecting the timber is perhaps the most time-consuming aspect of the whole operation.

I used 35 cm (14 in) lengths of dry pine (radiata, oregon, Californian redwood etc) of any diameter — the bigger the better in terms of putting the walls up in a hurry — although the variation in size makes it totally impossible to keep a course straight.

Foundation footings were 10 cm (4 in) deep and 45 cm (18 in) wide, reinforced with chicken wire. On top of the foundations I laid a plastic damp course and the first row of cord was laid directly on this. Later reading on log cabin construction has led me to consider the idea of 'spiking' the first row of cord to give greater stability.

Logs are cemented together with a mortar mix of 1 cement, 1 lime, 4 sand and 5 sawdust. The latter is meant to slow down the curing process and inhibit shrinkage, the curse of cord wood construction. Logs are also meant to be tied together, the same as is done with bricks. I started off using fencing wire and staples and gave it up as a bad joke. It tends to pull the logs out of the mortar mix when too much strain is placed on it and it was difficult to mould the wire into the contours of the wood. If I ever try to put something like this together again I might use barbed wire, but I don't know how effective this will be.

When cementing the logs try to keep them as close together as possible, but not touching. This means that the majority of the structure is cord rather than mortar. This also tends to make the building a giant jig-saw type affair, so have as many different diameter logs as possible, even as small as 3-4 cm (1½-2 in). When cementing, place handfuls of the mix so that there is a gap between logs. It is also advisable to wear gloves when cementing because it tends to make a horrible mess of your hands.

Doorways and windows should be framed up first and, unless you have a really good eye, a general frame may be useful for keeping things square and perpendicular. Of course, you don't have to build square and perpendicular. A neighbour has built a circular wood loo — it's big enough for a communal effort, but does show that one is not limited by

shape. Corners and doorways were cross stacked (figure 1), but it may have been better if I'd doubled the length to 70 cm (28 in) to hold them more securely into the walls. Two things on corners:

- Try to keep the corner logs to a similar diameter.
- Keep the mortar mix reasonably dry to stop it being forced out and running all over the place.

Bolting 4 x 2 green hardwood — as top plates for the rafters to rest on — to the top course of cord wood was a bundle of laughs. As the top row was not completely flush the plate tended to pull the cord work out of the mortar mix, again. Hopefully I've solved any problem of lifting by strapping the plate to the wall with discarded metal straps from a local metal supplier. Roofing is simple skillion, and sparse: six 6 x 2's, also of green hardwood, set 80 cm (32 in) apart and with a drop of 30 cm (12 in) the width of the shed from front to back, with corrugated iron slapped over the top (figure 2).

The only thing left to do is anti-termite the place with sump oil. You could be lavish and use creosote or, more spectacularly, linseed oil — the latter would give a marvellous finish but would the sheep appreciate it, or even notice the difference? Note that both creosote and sump oil will turn the timber black, and that creosote has an adverse affect on the mortar mix, so be careful to apply it only to the wood.

All up it cost me \$130 for the timber and about \$150 for the sand, lime and cement; the sawdust was free. The only other costs were chain saw running and my time.

As to the time it all took, it's somewhat difficult to guesstimate, in that I only had weekends to work on it, whilst supposedly child-minding our two youngsters (3 and 5 years old). If working with kids this age, do a head count every now and again, otherwise you could end up cord wooding them. They just loved playing in the sand and shovelling it anywhere but in the cement mixer. But back to the point: I collected wood over a period of five to seven days, and took about a day and a half to cut it into the required lengths (does wonders for your back). After that, every weekend, when it was fine or when other more essential things had been done around the place, there I was out cementing cord wood. Probably a total of thirty hours, or from early February to early April — as you see, lots of time for fiddling. Also, the fact that this is the first time I've built anything so grandiose or ambitious didn't really help, great for boosting the ego though. I usually mixed 5-6 two cubic metre loads and laid about a metre height each day all the way around. This limit was mainly because of the kids, but also because I thought it would leave time for the wood to settle and the mortar to cure.

As stated previously, the major problem is shrinkage, that is the wood coming away from the mortar mix. It is essential that the timber is well seasoned and dry. A quick way to determine this is by weight — the lighter it is the drier it is — or if the bark flakes away easily. It is essential to peel the bark off anyway, as it rots away quickly in the mortar. Unseasoned

timber will also obviously create shrinkage. When shrinkage does occur, chink with a 1:1 mortar mix. Shrinkage and cracking will occur in surfaces left exposed to the elements, particularly rain, for too long. A 70-80 cm (28-32 in) roof overhang should offer ample protection.

Well, what started as a simple letter has developed into a Homeric tome; there are things I've probably forgotten to mention, but if you feel up to trying cord wooding feel free to contact me. Have fun early, as you may curse the project later!

Fig. 1. Front view.

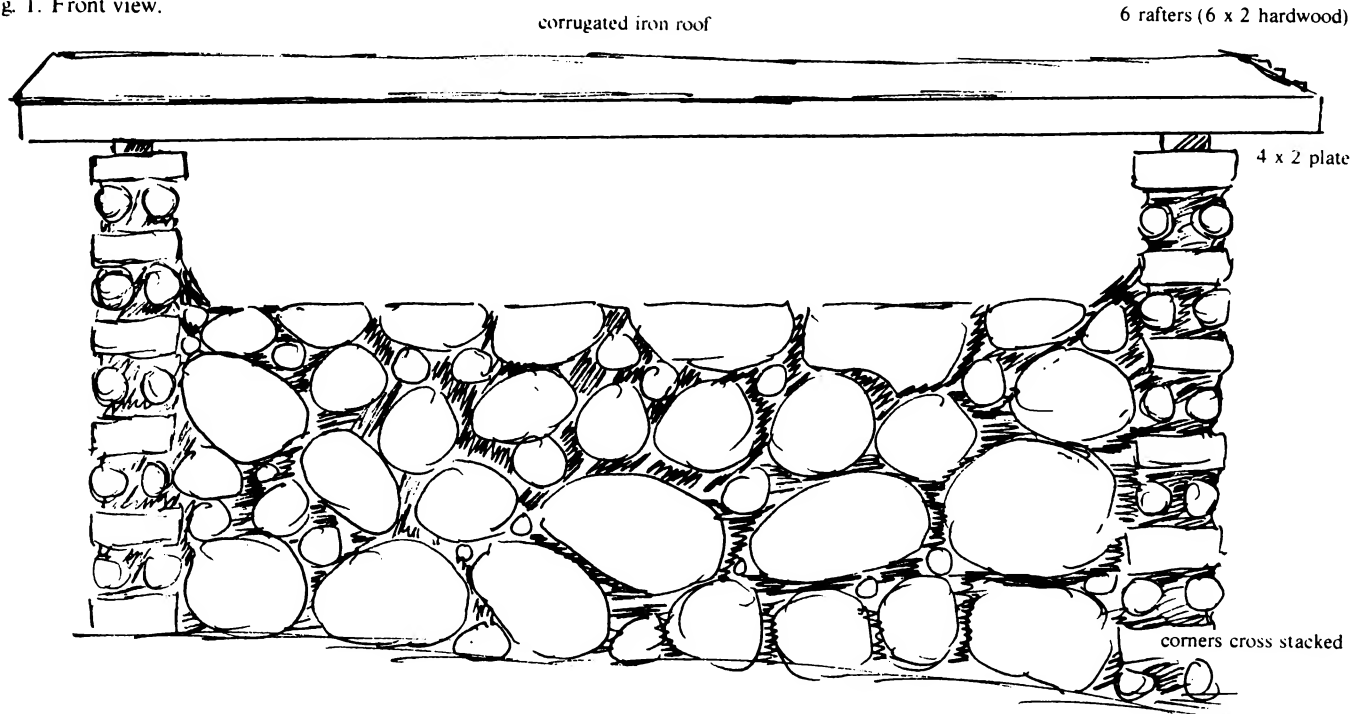
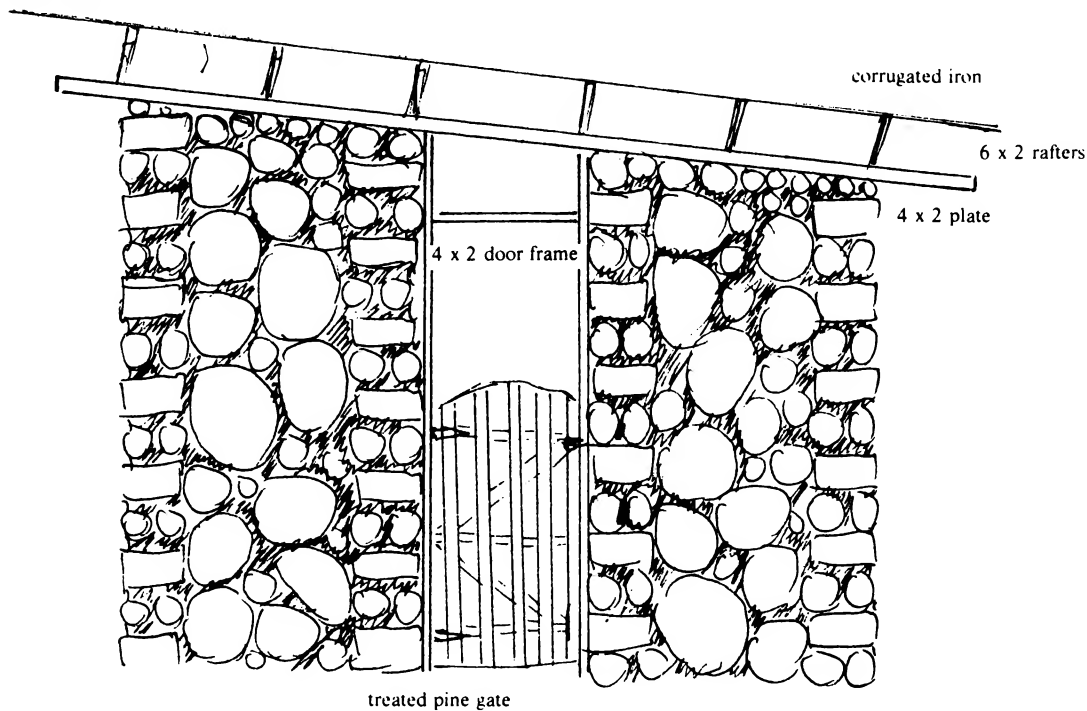


Fig. 2. Side view.



The CSIRO have recently developed an improved type of creosote that penetrates the wood more fully, leaving a drier surface. This Pigment Emulsified Creosote should be available for general use later this year, so check with your local timber supplier for details.

For a detailed list of discounted secondhand books on how to build houses, sheds and other structures from a variety of inexpensive and readily available materials, send a large SAE to 'Heather', PO Box 764, Shepparton 3630.

# GROWING MANGOES

by Heather Harper, Shepparton, Vic.

One of the most popular and delicious of all fruits, the mango (*Mangifera indica*) probably originated in India, many thousands of years ago, and has since been introduced to all tropical regions of the world, including northern Australia. Since its establishment here last century the mango has developed as a commercial crop, with recent advances in cultivation leading to an estimated eight fold increase in production by the end of this century. Mangoes are grown commercially in northern Queensland, parts of the Northern Territory and a few areas of Western Australia. They will grow in other warm, frost-free areas, but crops are usually light and variable.

## DESCRIPTION

The mango tree is very tall, usually growing to between 10-18 m in height. It is a beautiful evergreen, and an ideal shade tree, with dense foliage of long, narrow green leaves that darken as the tree matures. Flushes of new growth turn the foliage to a delicate pink at the tips. Its height and spreading growth (up to 10 m) may cause difficulties with harvesting, so the trees need to be carefully pruned while young. Mango trees are long lived and, although they do not begin cropping for 5-6 years and may not reach full production for up to 20 years, keep bearing prolifically for many years afterwards. Some varieties will annually produce 1000 fruit per tree.

Flowers range in colour from white to pink and appear in vast quantities on long stalks or panicles. They may be self- or cross-pollinated and only a small proportion will develop into fruit. The flowers towards the tip of the panicle are the ones most likely to set fruit, so the mango fruit is often borne at the end of a long stalk. Flower growth may be adversely affected by rain, humidity or frost. It takes 4-5 months from flower development until the fruit mature ready for harvesting. According to the variety grown, fruit vary in shape, size and skin colour, which changes from an initial dark green, through light green to yellow or orange. Some types have a pink or red blush on a lighter ground, others show lighter spots. The flesh is sweet and juicy, but may be fibrous or non-fibrous in texture. Non-fibrous ones are preferred for eating, though fibrous types show better keeping qualities, especially when transported long distances. Some varieties have a pronounced turpentine flavour and these are being overtaken in popularity by the sweeter, full-flavoured types. Each fruit contains a single large seed, with a hard fibrous covering which must be removed before planting.

## CLIMATE AND SOIL NEEDS

Provided a few basic needs are met, mangoes will grow happily in a wide variety of conditions.

### Climate

Mangoes prefer a warm tropical climate, though they will tolerate considerable variations in temperature and rainfall. The optimum temperature range is from 25-30°C (77-86°F) but they have been known to thrive in much higher temperatures

and for short periods will do reasonably well at as low as 5°C (41°F). In fact, low temperatures are necessary to encourage flower development. Between 10-15°C (50-59°F) is ideal; below this, the tendency is to produce male flowers and only a few small, seedless fruit. Continued low temperatures lead to delayed ripening and possible development of a type of fruit rot before full maturity. An extended period of warm weather is needed after the trees flower, so that the fruit ripen properly. However, if the temperature rises too far, fruit may drop prematurely or be subject to scorching, though the trees themselves will suffer no ill effects from prolonged heat — or even drought conditions. Mature trees are also capable of withstanding frost, except during flowering, but young trees must be protected from its effects.

Rainfall conditions may be equally variable. Mangoes require a generous water supply, but the amount needed varies during the growing season. An extended dry period (3-4 months) is necessary to produce a growth check, followed by a flush of growth and flower development on the new shoots. In most areas irrigation is essential to provide the constant supply of water and nutrients required by the trees during flower and fruit development. Rainy days occurring when fruit is close to maturity may cause damage or lead to the development of fungal diseases in stored fruit.

For these reasons mangoes are often more successfully grown in areas with a warm, dry climate, provided that adequate water is available for irrigation. In these areas there is less likelihood of damage from pests and diseases, though sunburn may be a problem. Districts prone to frosts are not generally suitable and, although mangoes will tolerate lower temperatures, the extended ripening period makes them more susceptible to problems. The dry tropics of North Queensland and the north coast of NSW are therefore ideal, and other areas of northern Australia, across to Broome in WA, are quite suitable.

## Soil Types

Provided they are well drained, most soil types are suitable for the cultivation of mangoes. Excessive salt and alkalinity in the soil may cause problems, as will very rocky ground.

## VARIETIES

Over two hundred mango varieties are known in Australia, though only a few of these are widely cultivated. They are generally classified according to whether they are early, mid-season or late maturing varieties. In areas with a summer wet season early maturing varieties are preferred, while different growing conditions in other regions will make later types more successful. Nurseries and local growers are the best sources of information about the varieties best suited to a particular area. Variations in both yield and fruit quality must also be considered.

The most widely grown varieties are the Common and the Kensington or Bowen, also known in Queensland as the 'Apple' mango and in WA as the 'Peach'. The Common

mango, grown along the whole eastern Queensland coast, has long yellow-green fruit with thin skin. Although fibrous, the flesh is sweet and well flavoured, maturing early in the season. A midseason maturer, the Kensington fruit has orange-yellow skin with a pronounced pink blush and thick orange flesh that is non-fibrous and well flavoured. Although the tree may take 5-6 years to begin cropping, by its tenth year it should produce 350 fruit per tree and in full production in 15-20 years the yield may be as high as 8-900 per tree, maintained for many years.

## PROPAGATION

Since most mango varieties are monoembryonic (i.e. the single seed does not produce true to the parent type), they must be propagated by budding or grafting onto selected rootstocks — usually Common or Kensington. New grafts are often temporarily enclosed in a plastic bag to prevent the join drying out before it has healed.

The few polyembryonic varieties (each seed producing several seedlings true to the parent type), like Kensington and Common, may be grown from seed. Select seed from the best trees and plant as soon as possible after picking, as the seed only remains viable for a few weeks. Before planting, the outer covering should be removed and the seed immersed in hot water (50°C/122°F) to kill fungal infections or pests. Plant the seed on its side, just below the surface, with the curved edge uppermost. Germination should occur within 10-14 days and new seedlings must be kept well watered and in semi-shade for the first few weeks. When 10-15 cm (4-6 in) tall each planting should be cut back to the strongest shoot.

When transplanting seedlings (best done during the wet season), prepare a hole about 60 cm (2 ft) wide and deep and partly fill with well rotted manure mixed with soil and blood and bone. Seedlings should be 3-4 months old and have their leaves trimmed to one third. Larger seedlings also need their taproots cut a few weeks prior to transplanting and should retain a ball of soil around the remaining feeder root system. They must be well spaced — allow 9-10 m (30-33 ft) between trees — and need protection from extremes of heat and cold until they are mature.

## CULTIVATION

Except in monsoon areas, mangoes require regular irrigation, with a protracted dry spell to encourage flower development and subsequent fruit set. Regular dressings of sulphate of ammonia are recommended for young trees, with the addition of a complete NPK fertiliser as the trees mature. Fertiliser requirements will vary from region to region, so local advice should be sought. Weed growth beneath trees can be kept to a minimum by inter-row cropping with immature trees, or cover crops when trees have reached full size. Pruning is essential to shape young trees and encourage outward branching, but older trees will only need occasional tidying up or removal of damaged limbs.

## PESTS AND DISEASES

In warm dry areas mangoes may be relatively free of the pests or diseases which tend to attack them in wetter areas. The major problems arise from fungal diseases, such as anthracnose, powdery mildew or bacterial black spot, and from attack by

fruit fly. Other pests include fruit sucking bugs, monoleptra beetles which attack the flowers, mango seed weevils, scale insects and fruit spotting bugs. Roots may be affected by nematode infestation in the soil. Methods of dealing with specific pests depend on the area involved and choice of the appropriate natural or chemical means of control. The best procedure is to keep trees as healthy as possible, so that they are better able to resist infection. Biological control of fruit fly has been effective in some areas.

## HARVESTING

Since the fruit is easily damaged, mangoes need to be harvested with great care. The flesh bruises readily and the skin may become stained by milky sap oozing from the cut stem. Mangoes, even from the same tree, will ripen at different times, so it is important to choose the right time for harvesting — too early and the fruit will wilt and lack flavour, too late and it will rot. When ready for picking, the fruit should be yellow near the stone. At this stage of ripeness it can be stored for 2 weeks before being ready to eat. With later harvesting, fruit will only take 2-3 days to soften. Commercial crops are then washed, graded and packed in paper lined cartons for marketing.

## USES

There are a multitude of ways to use this delicious and versatile fruit, depending on the size of the crop and the creativity of the cook. Eat them fresh wherever possible, to fully appreciate their flavour and sweetness. They will keep in the refrigerator for 2-3 weeks and can also be preserved in a variety of ways — bottled, frozen in slices or as pulp, or dried as leather for longterm storage. Everyone in the area will have their own favourite mango recipe. The fibrous types are ideal for making chutneys and jams or jellies, while the juice is often blended with that of other fruits for a delicious summer refresher. Dedicated users recommend mango wine as a most enjoyable way of disposing of surplus fruit.

Attractive in the garden, useful for shade and a prolific producer of delicious fruit, the mango is uncomplicated to grow and an ideal tree crop for warm areas, as either a single tree for home use or an orchard for large scale commercial production. No wonder its popularity is increasing so rapidly.

## Useful References

*Some Tree Fruits for Tropical Australia*, by Alexander, Scholefield & Frodsham, CSIRO.

*The Mango in Australia*, by D. Alexander, CSIRO.

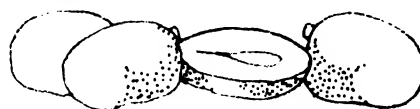
*Mangoes in the Garden*, Agfact H6.1.10, 2nd edition 1982, by J. Bruhl, NSW Dept of Agriculture.

*Mango Growing in Queensland*, July 1972, leaflet from Qld Dept of Primary Industry.

*The Mango in Western Australia — 1972*, Bulletin 3118, WA Dept of Agriculture.

*Growing Fruit in Australia*, by Baxter & Tankard, Nelson, \$32.85 posted from Night Owl.

*Going Tropical — Living and Fruit Growing in Northern Australia*, R. Edwards, Night Owl, \$15.50 posted.



# MANGO MADNESS

by Denyse Bonney, Townsville, Qld.

Here in North Queensland, the annual epidemic of mango madness has arrived again. Everyone has their favourite mango chutney recipe but you can only use and give away so much before it becomes a pantry clutterer. What on earth do you do with the rest of the fruit?

## RECIPES

Here are a few delicious ways of using mangoes in a variety of dishes. Common, Bowen or other fibreless types are preferable for recipes other than chutneys.

### Mango Ice Cream

- 4 breakfast cups ripe mango puree
- 2 cups sugar
- juice of ½ lime
- 5 eggs
- 3 cups milk
- pinch salt
- 3 cups whipping cream

Place sugar in 1 litre refrigerator container with mango puree and lime juice. Mix well and then chill. In a double boiler prepare custard by mixing eggs, milk and salt well. Cook gently until custard coats spoon. Cool slightly before chilling in refrigerator for at least 1 hour. When ready to make ice cream, put cream in a large mixing bowl and whip until thick. Add custard and pureed mango mixture. Mix well and freeze.

### Mango Jelly

Peel mangoes and stew to pulp. Sweeten to taste and to every cup of stewed fruit allow 1 tablespoon gelatin. Dissolve gelatin in hot pulp, add beaten whites of 2 eggs. Beat mixture well and set in bowl or mould.

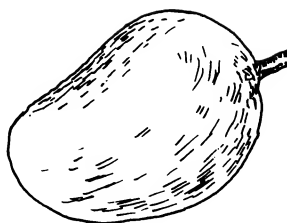
### Mango Butter

- 500 g (18 oz) mango flesh
- ¼ cup chopped ginger root
- 2½ cups sugar
- ¼ cup lemon juice
- 1 pkt pectin

Put the half ripe mango flesh through a coarse food chopper. Put into a saucepan, cover with water and add ginger in a small cheesecloth bag. Simmer on a low heat until tender. Remove from heat and press through a sieve, saving the juice. Discard the ginger. Add sugar and return to low heat, cooking slowly until reduced to a thick consistency. Remove from heat and add pectin. Stir until slightly cooled and pour into hot, sterilised jars.

### Caribbean Mango Chutney

- 12 mangoes, stoned and sliced
- 150 g (5 oz) raisins
- 125 g (4 oz) dates, stoned and chopped
- 1 red pepper, seeded and diced.
- ½ litre (16 fl oz) cider vinegar



- 125 g (4 oz) ginger root, peeled and sliced
- 60 g (2 oz) salt
- 1 garlic clove
- 1 onion sliced
- 1 tbsp ground mustard seeds
- juice 1-2 lemons
- 1 large zucchini, sliced (optional)

Place raisins, dates and red pepper in a large basin and cover with half of the vinegar. Stand for 24 hours. Pour this mixture into a preserving pan, add rest of ingredients and simmer for 45 minutes or until mixture is thick. Bottle in sterilised jars and seal immediately. Chutney may be refrigerated and used within a few days as an alternative to sealing.

### Mango Chutney

- 8 large green mangoes
- 30 g (1 oz) bruised ginger
- 60 g (2 oz) salt
- 600 ml (1 pint) malt vinegar
- 2 sticks cinnamon
- 30 g (1 oz) mustard seed
- 2 tsp cayenne pepper
- 250 g (8 oz) sugar

Peel and slice mangoes, place in a bowl and cover with salt. Stand for 24 hours, then rinse well. Heat half of the vinegar and all the sugar in a preserving pan, and simmer until a thick syrup is formed. Add rest of vinegar and mangoes and simmer gently for 10 minutes. Put the spices in a muslin bag and add them to the mixture with the rest of the ingredients. Simmer about ½ hour till a syrup is formed, bottle in sterilised jars and cover. The amount of cayenne pepper may be varied if desired, however the chutney should be sweet and hot for maximum effect.

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- \* IS ECONOMICAL TO RUN WORKS ON  
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APPROX EVERY FOUR YEARS AND THEN IT'S  
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# Natural Goat Care

by Pat Coleby, Garfield, Vic.

It is 27 years since I was given my first goat — a specimen that should have discouraged me from goatkeeping for evermore, but it didn't and I learnt a lot from her in the line of managing recalcitrant animals! That brings my tally up to 26 years of kiddings. One tends to think that every possible variation of kid positions has been reached, but I met a new one this year, and doubtless there are still a few more to come.

This kid was one of three, all good-sized kids, two 4 kg (9 lbs) and one 3½ kg (7½ lbs). The doe was a three year old first kidder, not the ideal (rather like starting to have one's family round thirty like I did), but the person who gave her to me had reared her well. The first doe was a perfectly normal presentation, two feet and the head lying along the legs; number two presented two feet again, but instead of a nose, I was confronted by two ears. Its nose was jammed firmly back between its legs, and nothing I could do would bring it forward. I pushed it back once, but when I found it would not shift, decided I'd better get on with it and pull the kid. Luckily Daisy is a big doe and could cope with a large forehead instead of the flattened one which a correct presentation would produce, so I managed to extract number two doe in good order. There was nothing wrong with her, and she was soon tucked happily in the kidding cage away from mum. The last doe arrived a couple of minutes after, and I was able to remove them all without Daisy seeing them, which I have found cuts out the traumatic part of kid catching. Daisy is actually tested CAE-free, but I do not feel like taking chances until we are a little further down the road to CAE-free status.

I have two notes for this article, the first on cross breeding, prompted by a slightly aggrieved letter from a friend who'd put a BA (British Alpine) which was about App. C or D, in other words a first cross or come-back, to a buck of similar status. The result had been some very funny looking kids indeed, not one truly marked BA among them. We all start with cross breeds at some time or other I guess, and I have produced my best BA families by crossing a very good BA with a high class Saanen of a strain that carried a recessive for BA markings. Over the years I've fixed these two families, always breeding for long lactating animals with high wide udders and good production — nothing shattering, 5 litres will do me fine — and of course they must milk through respectably. Occasionally the first animal crossed in has been a straight feral type, or 'bitsa', and it is essential in those circumstances to use a buck with as long a line of good traits and straight breeding behind him as possible if one's object is a type like the father. An interesting all-chestnut feral goat, with the ability to give three litres for as many months, was the first one I experimented with. The first year we put a grade 2 (App. C) BA buck over her, and got an interesting collection of this and that: no BAs, their milking ability was slightly better than mum's, and they milked for about five months. The next year I put a pure bred BA buck from one of the best milking families of any breed over her, and we got two does, marked like BA, but with chestnut instead of white; these does gave two litres a day virtually forever, with no cut-off when the winter came, and their daughters also milked as well

as normal goats. You must have at least one of the partners pure bred for outcrossing; the ideal is to take two pure bred goats of two breeds, the best you can get (milkwise) and mate them to instigate a cross breeding programme. Some of the greatest milking families in the world started this way.

The second point I want to make is about providing a balanced diet for milking goats. People frequently ask me why they have to go to so much trouble trying to feed their goats, when so and so has an empty goat (possibly even a wether) up the road which they never feed (apparently) and it looks marvellous. One of the greatest stresses on a doe is kidding, another is lactating, and the greatest of all is doing both together, which is what most good milkers do coming up to kidding. A goat in the wild is not restricted in any way, and can browse on the most nutritious trees or shrubs that it can find. These contain practically every nutrient they require, and one must also bear in mind that nature's survival of the fittest has operated since birth — no coddling of weak kids, only the strong have survived. We have brought goats into an alien environment; for obvious reasons we cannot allow them unlimited access to trees, which they would soon kill. Therefore we have to learn to provide them with an optimum diet, containing all the nutrients, especially minerals, that they would get in their natural state. We have also upgraded them to produce more milk than they would habitually give if left in the wild.

To stay healthy they will need ad lib hay nearly all the year round, bail feeding twice a day, access to seaweed meal ad lib and the bail feed must be balanced carefully to make up for the shortfalls in their grazing area — and shortfalls there will certainly be. Another factor that should be remembered is that goats are deemed to have a mineral requirement six times higher than any other animal, and WE have to meet that requirement, they cannot do it in confined farm situations. This latter way of life also upsets the worm balance, not only in goats, but, as has been found in the South African wildlife parks, in giraffes and all grazing animals. But I'll discuss that problem in the next issue — it is not too difficult to control.

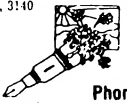
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# What is Bio-Dynamic Agriculture?

by J P Sturm, Franklin, Tas.

Penny of West Rosebud (GR 58) prompted this article. Many of us must have seen Alex Podolinski's farm on *A Big Country* on ABC television in 1985 and had our curiosity piqued. I can make no claim to be a bio-dynamic farmer, but as a new convert can perhaps explain a little about it.

The virtues of the organic approach to farming and gardening have often been extolled in these pages. All too often people see organics as simply substituting 'natural' materials for 'chemical', pyrethrum for malathion, blood 'n' bone for sulphate of ammonia and superphosphate, and so on. Others, more perceptive than this, try to imitate nature as in Coralie Whitby's *Eco-Gardening*. The bio-dynamic approach is different again. One tries to understand the forces of nature and use this understanding to achieve a viable, self-sustaining system requiring no external (NPK) inputs to balance (NPK) exports from the farm. Whilst this seems to fly in the face of current common sense, over one million hectares are being farmed bio-dynamically around Australia by professional farmers. It is also worth reading *The Haughley Experiment*, by Lady Eve Balfour (Faber), where a self-sustaining system (not b/d) was compared with a chemical system over a period of twenty years.

The basis of any viable organic system is humus in the soil and an understanding of this is essential. Humus is a colloid (a simple example of a colloid is good old jelly that is used for dessert) which holds water soluble elements that will not wash out of the suspension. Humus holds plant nutrients in solution so that they are available to the plant's feeding roots, leaving the water roots to take up water untainted by plant nutrients. Thus when the plant needs water it takes up only water, when it needs food it takes up food. Where nutrients are dissolved in the plant's water supply, nutrients are taken up whether the plant needs them or not.

The nett result of this latter method of feeding plants is the uptake of evermore water in an attempt to dilute the solution of nutrients within the plant. The plant becomes very big, but its health suffers from this overfeeding. This is the problem of conventionally grown plants. Excess nitrate is converted to nitrite (a carcinogen), poorer quality proteins are created and the plant becomes sick. Disease and pests, nature's way of removing the sick, take over and we see a familiar picture of chemical interference.

In this understanding of the function of humus then, we see that the application of raw animal manures or blood 'n' bone on their own, without the addition of well-rotted vegetable matter, is no different from using sulphate of ammonia or superphosphate. In the Haughley experiment it was shown that plants fed with good compost humus were amazingly resistant to pests and diseases, and that this resistance is conferred on the consumers of these plants, livestock and human. Here then is the key to our natural heritage, good health. The search for ever more effective cures is a furphy.

Humus-rich compost that confers this disease resistance is made with one third animal manure and two thirds

vegetable matter. Composts made with mineral activator (sulphate of ammonia) or purely vegetable material, even though they may analyse as chemically identical, do not show this health-inducing property. Bio-dynamics enhances the effectiveness of compost by the use of particular herbal preparations and an emphasis on cow manure, for reasons beyond the scope of this article.

The preparation of the spray 500 by putting cow manure into cow horns and burying them over winter, as shown on *A Big Country*, is pointed to as the 'muck and mystery' of bio-dynamics. The horn manure is dissolved in water and sprayed on the ground in the evening, in what amounts to homeopathic doses. Over a period of time the horn manure enhances the formation of humus in the earth, leading to an increase in humus despite the export of what the ground is growing. That is, on pasture feeding cows, we can export the milk and meat and, using 500 to mobilise the nutrients that are there in the soil, still see the fertility of the soil increase.

What happens, by contrast, when we apply water-soluble elements such as super is that we shortcircuit this natural soil biology, leaving it with no purpose. Gradually the soil organisms die off and so ever greater quantities of 'manure' become necessary to maintain production. Root systems become shallower and trace elements become necessary. Shallow root systems are 'droughtier' so irrigation becomes necessary. All these 'necessities' are not needed if you follow bio-dynamic procedures.

This is a brief, inadequate picture of bio-dynamics, a system initiated in the 1920's by the philosopher/scientist Rudolph Steiner, as a response to the concern of farmers who even then perceived the decreasing health and yields of crops. Though firmly based on Steiner's indications, bio-dynamics requires a rigorously thoughtful approach to farming, as each farm organism is unique; there is no simple formula, you are guided by the experience of fellow bio-dynamic farmers and taught to think for yourself in an appropriate way. It is above all very hard work, requiring great skill and devotion, but the rewards are even greater if you persevere.

## References

*Introductory Lectures*, by Alex Podolinski.

*Culture and Horticulture*, by Wolf Storl.

Both books are available from Rudolph Steiner Book Centre, 307 Sussex St, Sydney 2000. Ph: 02-264-5169.

*The Living Soil* and *The Haughley Experiment* by E. B. Balfour, Faber, available from most libraries and bookshops.

*Agriculture*, by Rudolf Steiner, \$22.50 posted.

*Handbook on Composting and the Bio-dynamic Preparations*, by George Corrin, \$3.50 posted.

These two books are available from Night Owl Publishers, PO Box 764, Shepparton 3630.

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A useful scoop for chook feed can be made by cutting a two-litre bottle on the diagonal. Keep the lid on and use this end as the handle.

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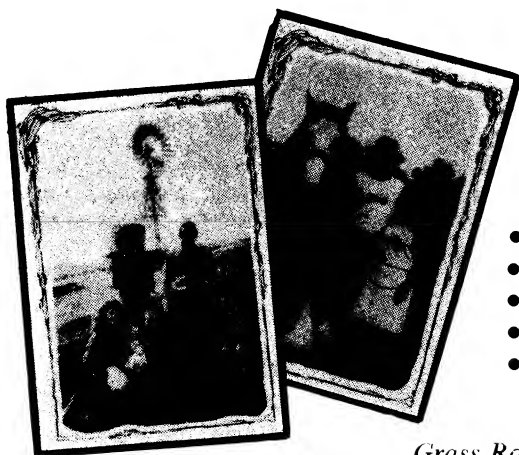
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No. 54 Cotton ball spinning, Ecuador, Althorpe Island, wind-powered bicycle, vegetarianism, pawpaw, octagons, hydroponics, rugs for animals, lice and goats, tofu, electrical tools, flax and linen weavers, tanning hides, eradicating bracken fern, disinfectant, crossword.

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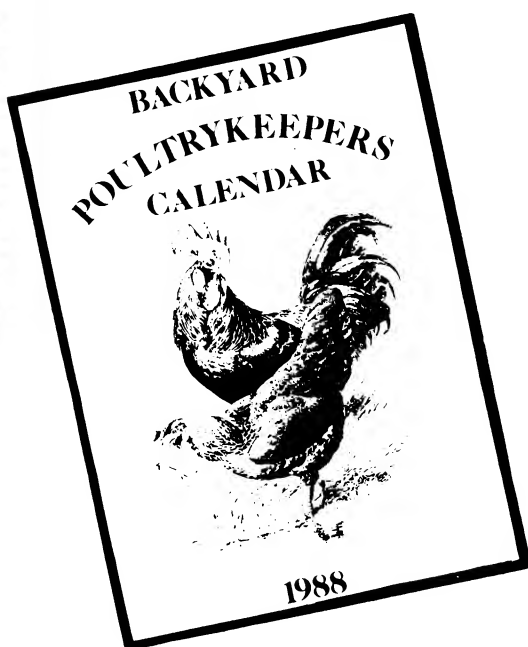


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# Electrical Wiring on 12 Volts

by Geoff Taylor, Black Forest, SA.

Neve Sweeney's article in GR62 was of particular interest to me as I am a retired Technical Officer from the Electricity Trust of SA and a licensed electrician, and I have installed a 12 volt system in our shack at Swan Reach.

Firstly I must clear up some of the important differences between 12 volts and 240 volts. Some of these will explain Mr Sweeney's experiences as well.

## WIRING

Basically, on 12 volts you are carrying very much heavier currents to produce the same amount of power.

Power = watts

Watts = volts x amps

so if the volts are low the current (amps) will be high, e.g. a 60 watt globe on 240 volts draws  $\frac{1}{4}$  amp, but a 60 watt globe on 12 volts draws 5 amps.

For any given length of wire the voltage drop along the wire is proportional to the current drawn through it, and inversely proportional to its cross-sectional area, i.e. the higher the current, the greater the voltage drop, but the greater the diameter of the wire, the lower the voltage drop. The voltage drop also increases with the resistance (measured in ohms) of the wire. Take an extreme case of a wire that has a resistance of 1 ohm. With our 60 watt globe in place:

on 240 volts the voltage drop will be  $\frac{1}{4}$  volt = 0.1 percent.

on 12 volts the voltage drop will be 5 volts = 42 percent.

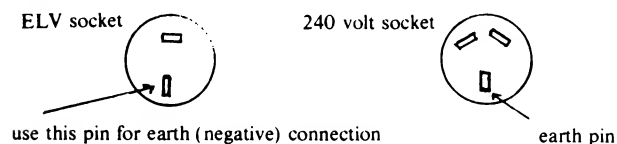
This is why Mr Sweeney said the light dipped when he switched on another light.

The voltage drop in the wire does not give out light, in fact, the power lost causes heating in the wires. This is very likely the explanation for the melting of the plastic sockets on the 18 watt globes, described by Mr Sweeney. What it boils down to is that if you install a 12 volt system you must use heavy wire and the heavier the better. For the same reasons it is best if all connections are either soldered or of the screw type rather than the crimp type that seems to be the norm these days.

In the case of our shack (see GR 47 and GR 49 for a description of its construction and erection) our general circuits are wired in 2.5 mm<sup>2</sup> twin conductor and earth TNS house wiring cable. I have connected the earth wire and the black covered wire at both ends of each run to reduce the voltage drop.

As Mr Sweeney's diagram of the ELV (extra low voltage) socket shows, you only need two wires on a 12 volt system. The negative is also the earth and, in our case, with a windlight, the tower is the earth side of the circuit. To follow the convention for ELV wiring, the vertical pin of the T formed by the two pins is connected to the earth wire and the cross is connected to the active wire. This also conforms to

Fig. 1. Earth wiring on 12V and 240V sockets.



the convention for 240 volt three pin wiring where the vertical pin is the earth pin (figure 1).

Normal 240 volt switches are not recommended for use on 12 volts because :

- they are normally micro-break switches which will not interrupt a heavy DC current.
- the contact action relies on a higher voltage to break down any oxide films and maintain good connecting surfaces.

The best switches to use are ones labelled for AC/DC. These switches, still manufactured by at least one Australian company, have a roller contact which operates between two fixed contacts and also have a quick break action.

## LIGHTS

Our experience with festoon type globes agrees with that of Mr Sweeney. Their life seems to be shorter than that of other similar wattage globes. We have bought and used bayonet cap globes which fit standard 240 volt sockets. These globes are still available but are extremely expensive (an arm and a leg). Car, caravan or boat light fittings are available in a range of types and take standard automotive globes. The variety and cost make these far more satisfactory than the 240 style ones. For large area lighting we have used a 12 volt 55 watt quartz halogen car spotlight lamp in a homemade fitting. This gives a light output equivalent to a 125 watt 240 volt globe so is a good room light.

Fluorescent lamps give a higher total light output for a given current consumption but are a diffused source of light rather than a point source which makes them appear less efficient than filament lamps. Our experience as to the price of caravan fluorescent units agrees with that of Mr Sweeney, but another problem can be the electrical 'hash' they radiate into any nearby radio receiver. The hash is caused by the inverter action that produces the high voltage a fluorescent needs to operate.

Apart from various lights, we have used a radio, a car vacuum cleaner, an evaporative air conditioner and we have recharged the battery drill overnight from our 12 volt system; we also run pumps for the watering on a time switch when we are away. For larger loads and 240 appliances a 240 volt generator is necessary but need only be started up and used for short periods because the 12 volt system is sufficient for most needs.

## BATTERY BANKS

Connecting batteries in parallel provides a larger capacity but is fraught with danger unless suitable precautions are taken. All is well as long as all the batteries and all the cells are working correctly but if even one cell fails the whole bank can be lost. The loss of one cell causes that battery to drop in voltage to 10 volts. This drop has several effects:

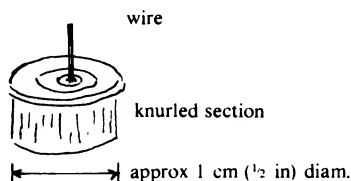
- The entire battery bank voltage drops to 10 volts.
- The other batteries discharge into the sick one in an effort to raise its voltage, so high currents will flow within the battery bank.

- The heavy currents can actually lead to a fire and certainly constitute a fire hazard.
- The heavy discharge can damage the other batteries so they also fail.

Mr Sweeney's experience with one of the sets of reconditioned batteries 'which showed a continuous discharge' and 'would not hold a charge when in use' is exactly the situation described above.

The problem can be overcome, though, by installing isolating diodes in both the charge and discharge circuits. A diode is a device that will only allow a current to flow through it in one direction. There is just no circuit in the opposite direction. On a diagram, the symbol for a diode is an arrowhead and a bar (figure 2). The arrowhead shows the direction in which the current can flow through the diode. Suitable diodes are available from any electronic supplier and from car electrical suppliers. There are two types of diode: one for normal polarity and the other reversed polarity, for the two current directions, and the physical construction of each is shown in figure 2.

Fig. 2. Diodes.



FOR BYX21/200 (normal polarity), knurled body is CATHODE connection

FOR BYX21/200R (reversed polarity), knurled body is ANODE connection

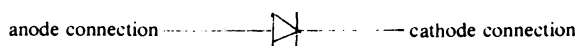
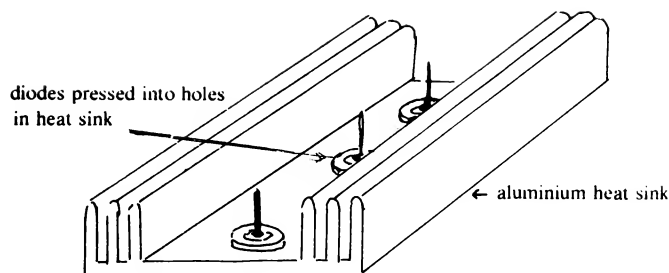
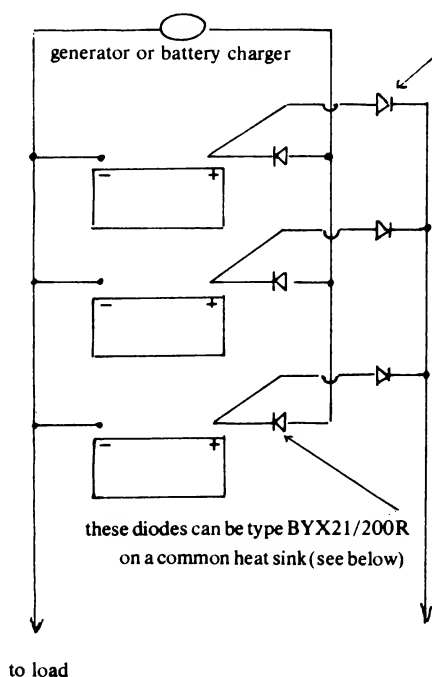


Fig. 3. Battery bank showing arrangement of diodes.

these diodes can be type BYX21/200 on a common heat sink (see below)



Heat sink becomes common anode or cathode connection for set of diodes.

Heat can be generated in a diode when current is flowing so they should be mounted on a metal plate called a 'heat sink' which is also readily available from the same places as diodes. The diodes are mounted so their metal cases are connected to the heat sink material (this is why there are two types so that, in whichever direction you need the current to flow, the diode can be mounted so the heat is dissipated). Only two heat sinks are required for a battery bank, as several diodes can be mounted on each. However, there must be TWO diodes to each battery, one for the charge and one for the discharge circuit.

The arrangement for a bank of four batteries is shown in figure 3. Where two lines cross each other on a diagram, by convention, if one line is shown with a kink in it, this means that it crosses but is not joined to the other. There is a small voltage drop across a diode (0.6 volt maximum), but this is a small price to pay compared with the cost of replacing the whole bank.

Fig. 4.

Wiring used in our system.

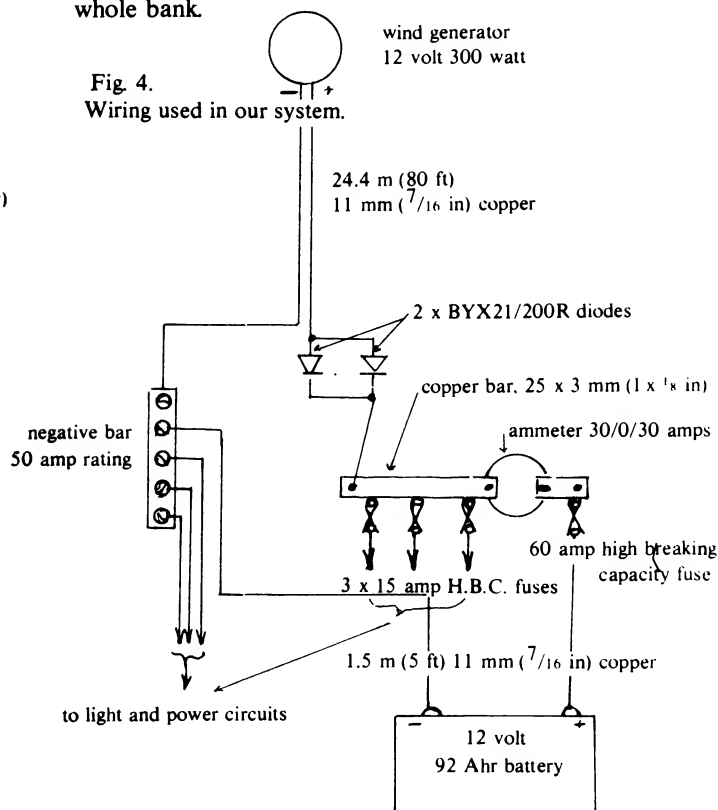


Figure 4 shows the actual arrangement we are using and the size wire in each part. This is simply a guide, to show you what is possible with a 12 volt system hooked up to a wind generator. You may be able to design a system that is quite different but equally effective. If so, we'd love to hear about it.

# A BUSH IDYLL

by Ray & Carol Drew, Tarago, NSW.

In July 1981 we left our house behind and walked off into the bush, carrying our new home and our chattels on the pack saddles of two donkeys. The residents of Campbell's Creek, in central Victoria, looked rather bemused as two adults and a child battled their way down the main street with two recalcitrant donkeys and two rather disobedient collie dogs. We had spent many hours practising for this day, teaching the donkeys to carry packs and follow one another, and teaching our two-year-old son, Bear, to ride atop a loaded pack saddle. Caught up in the excitement, the two donkeys were lurching around, banging the packs against people's front fences in absolute disarray. But we eventually cleared the town limits and reached the dirt road leading out of the town into the bush two hours later.

We passed a farm, and a young man we knew asked us where we were going. 'We're going to live in the bush,' we said. 'We're going to see what it's like to live with nature. We'll just follow our noses, and see where we end up.' The young man gave us a faraway look and told us he envied us. He wanted to do that one day, he said.

Still further down the road, with the afternoon sunlight filtering through the gums, an elderly man drew up alongside us in his car. 'What do yer think yer doing?' he demanded. We told him that we were going to camp in the bush, for the adventure. He grew very red in the face and yelled. 'Yer crazy! What about your responsibility to society! Look at that poor little boy — he ought to be home, watching television! You'll freeze to death out there!' He went on and on and eventually we walked away and he roared off in his car.

We walked off the dirt road into the forest. At the time, the bush seemed very wild, and yet it was only light forest. As the sun began to set, we found a valley and tethered the donkeys. We put up the tent and lit the fire.

It occurred to us that this was no camping trip. On a camping trip, you have your car, and if things get rough, or it rains too much and floods you go home. But the tent, all seven by seven feet of it, was now our home. There was no other home. Realising this fills you with a great excitement, and you begin to feel a part of nature. (Of course, we are always a part of nature, and have never been anything else.) But then a fear arises, because you have no security, you are vulnerable, exposed. You wonder if you are a bit crazy, irresponsible, as the old man said.

We wanted to live in the bush because we liked the bush, and we felt that it was a good thing to do. We were unemployed, and there was no work in our area. We would travel and look for work as we went. Without rent, we could also survive with a little less pressure.

The first weeks in the bush excited and frightened us; our minds went a little crazy for a while, looking for the usual distractions. Where was the television set, the books, the conversation with neighbours, and so on? But after the initial confusion, we became much more peaceful.

We moved locations, gradually entering wilder and more

remote bush. We tried the valleys, which in mid winter were damp and lush and water was plentiful, but it was a little too damp. Then we moved up to the ridges of the forest between Castlemaine and Daylesford. We were alone. Without a car, we could lead the donkeys into remote areas, where there were only animal tracks. After we settled in a new campsite, the wild animals who lived in the area would come back. The grey kangaroos lumbered past the tents, and we fed the birds every morning. At night you could lie back and study the stars. We never felt frightened of nature, even in the middle of a violent electrical storm. Rather, as time went on, we grew tense, like the animals, when we heard the shooting from hunters over the next ridge.

Apart from grey kangaroo and birdlife (and the kangaroos were not plentiful) wild life was pretty scarce. If one wanted to subsist by hunting and trapping wildlife — even with some skill — it is doubtful if you would survive. We mounted our favourite donkey, Jamie, and cantered off to town every week, and shopped just like everyone else. On the way back we walked and Jamie carried the groceries. The ten mile walk was not difficult after we became fitter and healthier. We visited people in our old town, too. We noticed that, as time passed, we had become outsiders to them. We were no longer in their social scene. Perhaps we had less in common. Perhaps we seemed threatening. I don't know.

A great deal happened in the bush. There was so much to explore — we walked ten miles or so a day — we didn't think of covering great distances in order to reach some goal. It was enough to be in a place we liked. On our walk from the city to the bush, we passed an old slab hut. We discovered two girls living in the hut. The girls had four horses. One day we went in to see them. Shy at first, they gradually warmed, and a friendship grew. We found that the two girls were planning a bush trek, like ours, through the high country of Victoria.

The two girls had unusual names — Ziggy Stone and Earth Flute. Ziggy and Flute would sit around a huge fire in their slab hut and tell us stories about their adventures in the bush. We often stayed there quite late until Bear was sleepy, and then we carried him outside to the donkey and made our way home to the tent, pushing through the scrub and the eucalyptus trees. We crawled into the tent and into our sleeping bags where it was warm and cozy.

Months passed and Carol was pregnant. She loved the bush. Yet it became harder for her to walk the long distances for food and water. Where, how would she have the baby? We knew that, even if we wished to re-enter 'society', it was going to be hard. There were no houses to rent in the towns near where we were camped. And a family who emerged from the bush dressed in army style clothing would not be regarded as 'respectable' citizens. Whilst it was easy enough to leave middle class suburbia behind, it was becoming obvious that we were going to have great difficulties getting back in.

Winter passed, then spring. Winter and spring are the best times to live in the bush. When summer comes, especially in

the more arid areas, life can become a battle with all sorts of insects — mosquitos, blowflies, and so on. The streams dry up, and you have to go further for water. The ground becomes cracked and hard. Even the donkeys grew rebellious. Seeking pasture, they snapped their tethers. We found them, eventually, miles away, at a lush farm. I went to grab Jamie and he kicked me in the groin. He was plainly saying that he didn't like the bush, not the grassless bush anyway. We ordered hay from the produce merchant in Castlemaine, and carried it to our campsite, bale by bale, fifteen miles in century heat.

I purchased a rifle. I found a clearing in the bush where an old abandoned homestead lay, walls crumbling. There were lots of rabbits there. I shot a few rabbits. After skinning them in the heat, with the blowflies and offal I didn't feel very hungry, but the dogs enjoyed their rabbit. I sold the rifle.

I was becoming despondent; I wanted to be able to move to a cooler climate, but we couldn't move more than a few miles a day.

One day our friends, Ziggy and Flute, suggested we buy ourselves a car. We agreed that it seemed the only thing we could do in order to move to a more amenable climate. Our two friends gave us the money to buy a second-hand car so we sold our donkeys.

Selling the donkeys really hurt us. they had been our friends and we played and joked together like kids. Our favourite donkey, Jamie, had become a member of the family. Yet six months later there we were, fifteen miles away from where we'd started, and feeling we should have travelled a lot further! Where did we want to go? We thought we'd like to end up in Canberra because our relatives lived there. Also perhaps there was work there, and we needed the money. Our donkeys too now seemed to dislike the bush. We wanted to sell them to someone who would let them run free in a large, lush paddock. And we did sell them. As we got into our car

and left our donkeys behind in a paddock, I have never seen sadder donkeys.

The car gave us a feeling of freedom. Zoom — we could be in Bendigo in an hour; zoom — to the border of NSW in four. As we left Victoria bound for Canberra, we began to realise that we were confined to the roads now and that nature was flashing past us at a great distance. We drove to the South Coast of NSW and camped by the beach, where it was cool and relaxing. Then we drove to Canberra and visited the relatives. They felt, it seemed, that we had become unwelcome gypsies. Oh, we could have a shower, a meal, but . . .

So we drove up to the highlands around Canberra. The Brindabella Mountains were wild and exciting. There were lyrebirds around the tent, wild pigs and huge galahs. It was beautiful country. Then we drove to Booroomba Rocks, still in the highlands of ACT, above the snow line. It was still summer and there it was cool. Carol would soon give birth to her baby.

Carol and I sat in the car one night in January, 1982. How would she have the baby? In a relative's house? In hospital? No, not in hospital, we decided. There were possibly great risks having the baby in a tent — but were there? All our conditioning said 'no.' Yet we had always found nature to be a friend, not savage. red in tooth and claw. What if something went wrong. 'What if baby or mother died?' I asked. Carol just said: 'Well, we have to face that, if it comes'. At the time, we were looking out the car window as we talked, and a shooting star fell from the heaven. 'That's a good omen,' I said.

The next morning sunlight was beginning to filter into the tent. Bear was up running around with the dogs. We started to think about making a fire for a cup of tea. All around the tent there were ferns and rocks and trees upon trees. There were granite cliffs with trees rising up very high, and mist floating around the topmost trees. Carol awoke to find she was in labour. She jumped up, left the tent, and strode up and down outside. Then she came into the tent. 'I must be in labour,' she said, as the head of the child appeared!

Our second child, Joe, was born in the tent, easily, naturally, perfectly. The dogs seemed to sense the occasion and jumped and danced around the tent, barking. Bear stood at the door of the tent and watched the birth with interest. I cut the cord and tied it with shoelaces. Our new baby looked around the tent with wide open eyes.

Our tent space was crammed and it started to grow cold. Our car was also showing signs of deterioration. We need the car to obtain food supplies from Canberra, forty miles away. And we knew too that our trip would have to end.

It took us a long time and a lot of hardship to find a house to rent. Eventually we found a cottage on a farm. We envy animals who are able to live in nature without all the agony and struggle we human beings seem to subject ourselves to. It is no longer possible, it seems, to live as a hunter/gatherer. The land is being hunted out and there is nothing to gather. Everything is becoming bounded, confined, under the name of private property. Carol and I would like to go on the road again on foot, with some pack animals.

\*\*\*\*\*



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# CRYPTIC GRASSWORD

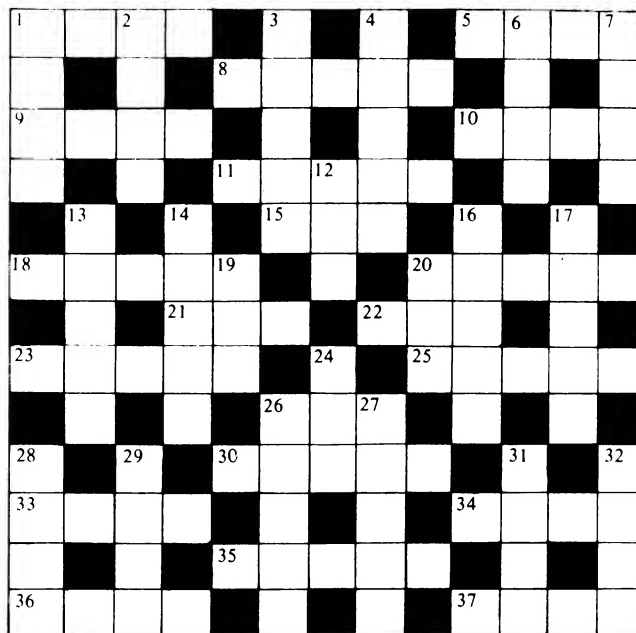
by M. Riley, Newborough, Victoria.

Across

1. Pit belongs to me.
5. Springs for pass.
8. Street spirit to play.
9. Remainder relax.
10. Number sounds in favour.
11. Lever back to make merry.
15. Pad of cloth or money.
18. Clean undergrowth.
20. Another we set could be sugary.
21. Jewel in dodgem cars.
22. Ode for rabbit.
23. Gave you uncertain meaning.
25. Abler to make noise.
26. Return tip for mine.
30. Extra makes tax again.
33. Dawn makes magic.
34. Thrust sack.
35. Performer in factory.
36. News brought together.
37. Room in hospital for guardian.

Down

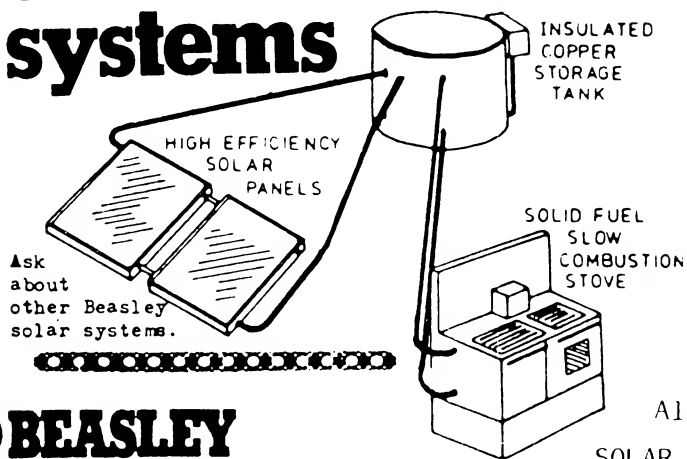
1. Arrange Rome for increase.
2. Sent for home.
3. Wrest and scatter.
4. Well pickled.
6. Reverse loop for puddle.
7. Kind of rots.
12. Five at tank.
13. Dispense with brawl.
14. A Guru prophet.



16. Wells expand when reshaped.
17. Wares of another kind erodes.
19. Some beetroot for honey maker.
20. Some sober, cry.
24. Apt and well.
26. Cheap for fruit.
27. Tonal quality of claw.
28. Slow for birds.
29. Sown for winter sport.
31. Company ma in a stupor.
32. Ends dispatch when arranged.

*Solution on page 60*

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# Poetry

## THE STORM

*The storm came in, high overhead  
Over the paddocks and gullies it sped  
Down over the river, wind in brown grass  
Wither'd and dying from times long since past.*

*No man ever saw such a fine sight as I  
Mottled brown land 'gainst cloudless grey sky  
The south-west wind crying with icy cold breath  
Its tidings of rain and the end of dry death.*

*Summer's joke 'tis us watching our greenery go  
While she, ever strong, adds blow after blow  
But as if to refute her brown dusty claim  
Our God now defies her and sends down the rain.*

*The clouds are amassing, high wind in the trees  
I sit with the cattle-dog's head on my knee  
The hours of prayer, frustration and toil  
Vanish like water on parched thirsty soil.*

*Now the parch becomes mud as the storm thunders through  
The wind howls, the strong driving rain whipped askew  
But the summer's a teaser, the storm's on the run  
Dispelling and breaking as fast as it's come.*

*Many's the long burning day that must lie ahead  
But for now the starved earth revives from the dead  
Fresh from the shower, breathing anew  
Covered in sunshine and sparkling with dew.*

*Steve Gordon.*

## AUSTRALIA

*Why travel round the world, when here we have it all,  
The rolling plains, the desert grim, the cities built so tall,  
Lush forests to the north, or the centre so arid and bare,  
They all have their special beauty as you wander and tarry there,*

*We have the snow-clad mountains, the rivers running free,  
Beautiful sandy beaches, a coral reef so fair to see,  
The ranges with their flowering trees and their bright wildflowers,  
Torrential monsoonal rains are just light summer showers.  
So when you get the travel-bug and wonder where to go,  
Consider first our own fair land, the highlands or the low,  
You'll find a place for every taste, country quiet or city gay,  
All places you visit will please you, and you'll really want to stay.*

*Ann Ball.*

## VACATION

*We walked upon the summer sand,  
Made comets with our toes;  
We thrashed our way through hip-high grass,  
And after us it rose;  
We climbed the trees and broke the twigs,  
And after us they grew;  
We drank our beer from wooden kegs,  
And then we thought we knew.*

*Brian Walker.*

## OLD MAN TREE

*He's seen a lot of smiles and tears.  
He's been around a hundred years.  
Very old and very wise,  
his highest leaves touch to the skies.  
But we chop him down and chew him up,  
just to make a paper cup.*

*Stacey Dart.*



### THE DISTRICT ORCHARDS

Rising from the lower flats, a creek of brush and briar  
The remnants of old orchards stand, once widely admired.  
For there were rows of apple trees, Johnnies, Smiths and  
Gravenstein.  
Spreading over the district slopes, blooming pink and white in  
spring.  
For then, local growers pruned and sprayed the apple, peach  
and pear,  
And the cherry, plum and quince trees flowered in sequence  
where  
During the 'picking' season, Clydesdales pulling carts and  
sleds  
Hauled the district produce to the orchard packing sheds.  
But the Clydesdale and the spring-cart, a laden orchard sled,  
The ripening fruits of the district bound for the packing shed,  
The families of the orchard and flowering once admired  
Have gone now from the rising slopes, up from creek and briar.  
Instead, above the lower flats, the remains of orchards stand,  
Spindly broken twisted trees in the midst of weed choked land.  
The blooms of spring are feeble and barely struggle through  
As remnants of those flowering slopes the orchard families  
knew.

Trevor Ratcliffe.

### TASMANIAN TIGER

Rare quiet thing  
this is the end  
you are the last  
dirt pawed wanderer  
twig stepping  
forest feeling  
green and lost  
like a limestone cave  
the solitary wanderer  
edging into stone  
like a fern leaf fossil  
and polished bone  
deep within your  
hounded self  
you know.

C. E. Hull.

### CHILDHOOD MEMORIES

A cat sat there idly sunning  
On a mat put out to 'air'.  
Mother told me quietly  
To sit a while there in my chair,  
'Washing to do, no time for you'.  
You can but look and listen  
When told not to make a sound,  
With outdoor copper boiling  
Over, hissed and dribbled to the ground.  
A 'jackass' sat in a tall tree  
With chicken in his beak;  
Mother cursed (though under breath)  
When this she chanced to see.  
A 'maggie' made a sudden dive  
At a baby in a cot,  
So mum just grabbed a rifle  
And shot it on the spot.  
The day wore on, the heat intense,  
My folks worked hard and sweated;  
A dead snake hung upon a fence,  
In the creek Dad fish had netted.  
Sheetless at night on bed I lay  
Tossing — one could not sleep;  
So much happened in one day  
And too tired to 'count sheep'.

Mary Miller.

Wheat crumbling between millstones  
Grinding, crushing, turning  
Wool twisting through fingers  
Twining, pulling, spinning  
Road blurring below tyres  
Bike moving, hauling, racing  
Muscles flexing  
Heart working  
Creating  
Living  
Energy!

Margaret Sweeney.

# ★ kids pages ★

Dear GR Kids,

I hope you're having a fantastic holiday — I am. I spent the last weeks at boarding school packing my stuff (funny how it seems to accumulate so there's five times as much as you started with), exchanging addresses and saying bye to those leaving who I mightn't see again. One friend came from Tanzania, Africa, and another, Anna McNicol is moving to a different part of the state. The house master and mistress were also leaving so there were special goodbyes to them. Then of course there were my room mates Melanie and Bethany and full time boarder friend Bronwen but fortunately I'll see them again next year. We all shared fun times and some amazing adventures together.

Christmas was exciting — there was much rustling of paper and door slamming beforehand and the day itself was ace. Not only were there beaut presents but the usual letter from Father Christmas as well. This year I got my own back. I got up at 5 a.m. to write a letter to David on behalf of Father Christmas. I subtly (as subtle as a brick through a window) mentioned one or two of his faults and how to improve on them. He was shocked that 'Santa' could play such a mean trick on him, and stuttered 'now wait a minute, that's below the belt'. It was a scream to see his reaction.

Since Christmas I've been visiting family friends and most seem to have had a baby during the last year or so. I'm sure I can almost 'speak' baby language now after helping feed, bath, dress and mind the sweet little bubs.

This week I've been spending time going through my drawers, the back of the wardrobe and the dreaded . . . oh no, not them . . . the boxes under my bed! Brimful of childhood junk, they haunt my days like the dirt under the rug and other all too familiar horrors.

Apart from all this I'm trying to do little, just read, potter about, laze in the sun, garden and sleep. Love till next time.

★ Suni.

Dear Suni,

Early in December we needed to cart our hay on our farm into the shed. We don't have a loader so we had to borrow one from grandpa. His farm is about 45 km away. The loader was put onto the truck and brought over, went around the paddock all day collecting bales and then was taken back to grandpa's, again on the truck. When they arrived back there the men were met by a very angry mother willy wagtail and to their amazement they found on top of the loader a nest with two baby birds inside. Nest and babies seemed no worse for travelling over 100 km during the day, mother bird was more interested in feeding her lost and found babies.

Matthew Garrett (13)  
Violet Town.

## CHOOSING PETS

To pick a potential talker among budgerigars, choose one that doesn't have a white ring round an eye or conspicuous black throat spots, and is therefore not yet three months old.

When buying a dog, remember that small dogs usually give their affection widely. Males among the larger breeds of working dogs tend to become one-man dogs, whereas bitches will befriend the whole family. If a puppy decides to cut his teeth on a prized piece of furniture, wipe the chosen spot with oil of eucalyptus or oil of cloves — strong smells his sensitive nose will find unpleasant.

## LISTEN TO ME

*Listen, please listen to me,  
You call me the jackass up in my tree,  
Some of my friends are pulling their hair,  
Like Wombat and Emu and Ko-a-la bear,  
Wallaby, possums, ole man kangaroo  
Platypus, snakes and lizards are too.*



*Men with their dozers have come and have gone  
Crashing our land and seeing no wrong.  
Since men have come with their trap and his gun,  
Living 'round here isn't much fun.  
I used to eat bugs that were lively and quick,  
But now they've been sprayed they make me feel sick.*

*They tell me the skies were once pretty blue,  
But now they've turned grey oh what did you do.  
Now don't you get angry and don't turn your back,  
You are the ones that are getting slack.  
You think that I'm laughing 'cause I'm having such fun,  
But I'm laughing at fools and what they have done.*

Scott Mulley.

★★★★★★★★★★★★★★★★★★★★

## Did You Know . . .

There are 86,400 seconds in twenty-four hours.  
Apples and pears are 85 per cent water.  
There is sufficient fat in the body of the average man to make 75 candles.  
A human being uses 72 muscles when speaking.

★★★★★★★★★★★★★★★★★★★★

What did the necklace say to the hat?  
You go ahead and I'll hang around

## COOKS CORNER

### NUTTY CHEWS

2 rounded tbsp honey  
2 rounded tbsp peanut butter  
2-3 rounded tbsp skim milk, whey or soymilk powder  
chopped nuts, sunflower or sesame seeds, and dried fruits (pineapple, dates, cherries)

Blend honey and peanut butter together. Work in enough dry milk powder to make a stiff paste. Shape into a square 12 mm (½ in) thick, on a board dusted with a little milk powder. Leave to set 1 hour. Cut into ½ in squares or shape into balls. Decorate by pressing in nuts, seeds, pineapple, dates or cherries. Store in the fridge. These will keep two weeks.

Janine Amey, Caringbah.

The Australian Bicentennial

Australia  
1788-1988

## Playthings Strong and Amusing

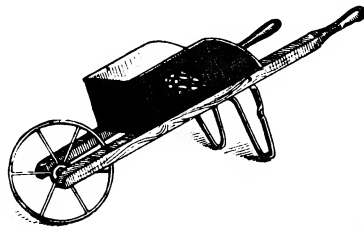
Did you know that the wide variety of toys and books you have and see in shops everywhere haven't always been available. Children from yesteryear received only a few toys each year — and yet considered themselves very happy. Families were larger then so there were more essentials like clothes and shoes to buy, and more children to buy for.

Another big difference was due to the fact that there were no plastic toys because plastic had not been invented. Toys in say the 1920's would have included colourfully painted tin tea sets, strong iron and wood wheelbarrows, Meccano sets, wrought iron dolls perambulators (prams, would you believe) and dolls made from wood fibre (they were said to be unbreakable) and celluloid. Other popular toys included water and metal pop pistols, tin buckets, spring tops, tricycles, rocking horses and for the older children sporting

gear like tennis racquets, hockey sticks, rope quoits and boxing gloves and punching bags.

Books were all hard cover, and included lots of annuals like *Boys Own Annual*, *Little One's Annual*, *Chatterbox Annual*, and *Australasian Boys Annual*. Books for girls had dubious titles: *Little Maid Marigold*, *Infelice*, *Heart of a Friend* and *Munition Mary* as well as classics like *Little Women* and *Good Wives* and favourites like the *Billabong* series and *Seven Little Australians*.

You might like to ask your parents and grandparents about their favourite toys when kiddies, the types of games they played and the books they read. Write in and tell us about what you find out and even suggest to your teacher that a project on this subject would be a lot of fun.



## BOOK REVIEW

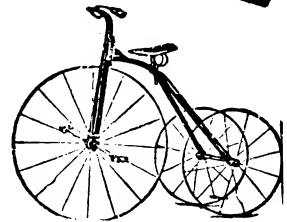
**Australian Costume for Teen Dolls 1788-1988**  
by Marjory Fainges, softcover, 64 pages.

The Bicentennial celebrations make this a timely book and certainly one appreciated and used by many in the 10-15 age bracket. It is a collection of patterns of typical Australian costumes worn during our 200 years of history. The designs and patterns are authentic yet simple enough to give an overall effect and at the same time sufficiently easy for anyone handy with a needle.

If you are, or have been a Barbie fan then there will be hours of fun ahead making and dressing these dolls and their male counterpart Ken. There is an outfit plus accessories for both dolls to represent each of the 20 decades. Everything from convict garb through to the dress of the gold rushes, squatting aristocracy, war years, Depression and even the fifties and Sixties to name but a few.

The book would be a tremendous asset to Australian history students of all levels and it would be exciting if schools could encourage children to construct dioramas of important historical events with figures dressed by the children themselves.

The book is available from Night Owl for \$9.95 posted.



## Scissors, Paper, Stone

A very old game that deserves reviving! This is a hand game, based on guessing which 'object' your opponent is going to 'throw'! It is a game for two players, using their hands to represent one of three objects: scissors, paper and stone. Two fingers in a V represents scissors, an open palm is paper, and a clenched fist stone. Each player hides their hand behind their back and, at the count of three, the hands are brought from behind their backs with one of the three postures adopted. The rules of the game decide the winner — scissors cut paper, paper covers stone, stone blunts scissors. For example, if one player chooses paper and the other stone, the 'paper' is the winner. You can keep score by using points or forfeits.



# While the Billy Boils...

*How many of you are inspired when preparing packed lunches in the morning? Whether it's food to take to school or work or just to have for a solitary lunch by the river (and a chance to dream), many of us have trouble getting past the obvious vegemite sandwich or hard boiled egg. Presentation is the key factor — the packed lunch must look good enough for everyone else to want to share it. So, to help with this common problem, we have suggested some nutritious and appetising ideas below:*

## SANDWICH SPREADS

### Mock Turkey

- 1 small onion
- 1 medium tomato
- $\frac{1}{2}$  tsp mixed dried herbs
- 1 egg, beaten
- $\frac{1}{2}$  cup grated tasty cheese
- 1 tbsp butter

Melt the butter in a small saucepan. Chop the onion finely and add to melted butter with chopped tomato and herbs. Cook lightly for 3 minutes then add beaten egg and grated cheese. Continue cooking, stirring gently, until cheese has completely melted. Place in a container in the fridge and chill. Will keep for several days.

### Chocolate Cashew Spread

- 25 g (1 oz) pitted dates
- 4 tbsp water
- 125 g (4 oz) cashew nuts
- 2 tsp cocoa
- 1 tbsp oil

Place dates in a small saucepan and simmer gently in the water to soften. Grind the nuts finely. Add the cocoa to the dates and dissolve. Now add the nuts and oil, blend all ingredients, remove from heat and store in airtight container in the fridge when cooled.

### Banana Spread

- 1 ripe banana
- 1 tbsp peanut butter
- 2 tsp lemon juice

Mash all ingredients together and use immediately, as this spread will not keep.

## LUNCHBOX QUICHE

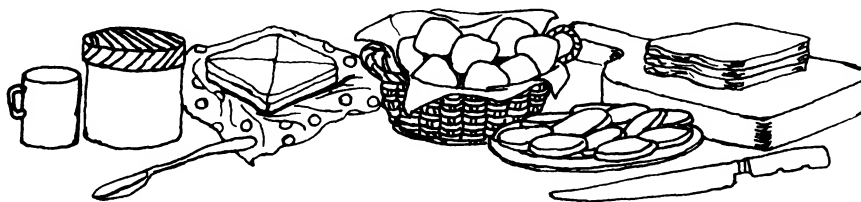
- 3 eggs
- $\frac{3}{4}$  cup grated tasty cheese
- $\frac{1}{2}$  tsp mixed herbs, fresh or dried
- 1 medium onion
- $\frac{1}{2}$  cup sliced mushrooms
- 1 cup steamed spinach or other preferred vegetable
- 1 tbsp oil
- $\frac{1}{2}$  cup wholemeal flour

Beat eggs and herbs together. Then, add grated cheese, chopped onion, sliced mushrooms, steamed spinach and oil and mix together. Now gradually blend in the flour. Grease muffin tray and half fill each well with mixture. Bake for 30 minutes in a moderate oven. ( $175^{\circ}\text{C}/350^{\circ}\text{F}$ .) Leave to cool before removing them from tray. Refrigerate till needed (3-4 days). Makes 10-12.

## BUCKWHEAT PANCAKES

- 1 cup buckwheat flour
- 1 cup wholemeal flour
- 1 tsp baking powder
- $\frac{1}{2}$  tsp grated nutmeg
- 1 egg
- 1 cup skim milk

Sift all dry ingredients into a bowl. Make a well in the centre, beat the egg separately and gradually add egg and milk to flour mixture until smooth. Fry in a little hot oil until both sides are brown. For a sweet pancake add a mashed banana to the mixture or stewed fruit or sultanas. For a savory pancake try grated carrot or steamed spinach, lovely with the nutmeg.



## CHEESE STICKS

- 175 g (6 oz) wholemeal S R flour
- cayenne pepper
- 125 g (4 oz) grated tasty cheese
- 4 tbsp cold pressed oil
- 2 tsp mustard
- 1 egg white

Season the flour with pepper and rub in the cheese. Whisk the oil, mustard and egg white together and blend thoroughly with the flour and cheese mixture. Roll out on a floured board to  $\frac{1}{2}$  cm ( $\frac{1}{4}$  in) thickness. Cut into thin sticks and bake on an oiled tray for 15 minutes in a hot oven. ( $200^{\circ}\text{C}/400^{\circ}\text{F}$ .) When cool, store in an airtight container.

## OLD FASHIONED LEMONADE

- 6 medium lemons
- $2\frac{1}{2}$  cups boiling water
- 1 tbsp honey
- 2 tsp chopped mint

Squeeze lemons, then pour juice into a jug with the honey. Pour the boiling water into the jug and stir till the honey has melted. Add the mint and place in the fridge to cool.

## FRUIT CRUSH

Experiment with freezing your favourite combination of blended fresh fruits, cantelope or watermelon, overnight. Taken out in the early morning it will have partially thawed by lunch time and is most refreshing during the heat of the day. Don't forget when freezing liquids in a sealed container to leave an air space for expansion.

# Homemade Pickles

by Margaret O'Brien, Brisbane, Qld.

This time of year we reap the rewards of diligent gardening, so much in fact, that baskets and buckets are filled to overflowing with the likes of tomatoes, peppers and zucchini. But it's not long before taste buds rebel and another dish of camouflaged zucchini brings rebellion. What to do with it all? One suggestion is to make up a batch or two of relish or pickles — they add zest to everything from grilled cheese on toast to lentil patties and sliced meat. They're ideal as little gifts, or to sell at your local market. Zucchini probably never tasted so good!

Making your own pickles is a simple and satisfying process. Cookery books contain a wealth of recipes, from the mundane to the exotic, but it seems that most people have a few tried and tested recipes that they use time and time again. You can pickle everything from mushrooms, onions and green walnuts through to cherries, plums and even eggs, but the most popular recipes seem to be those using a variety of vegies.

## BASIC RULES

- Choose good quality, firm vegetables and fruit, discarding anything that is soft or mushy. Cut out any marks or blemishes.
- Use the best quality vinegar available. The type you use will depend on the particular vegetable or fruit being pickled and the colour and appearance you desire. Malt vinegar has a strong colour and flavour, white is ideal for fruit because it results in such a good appearance and wine and cider vinegars (more expensive than the others) are generally used where a delicate flavour is desired.
- Ensure herbs and spices you use are fresh. Don't be tempted to use up the leftovers from last year, you'll just end up with an insipid product. Whole spices can be tied up in a muslin bag, bruised slightly to release their flavour and immersed in the hot vinegar.
- Jars should be wide mouthed with vinegar-proof lids. Never use uncoated metal lids. Coffee and peanut butter jars with plastic lids are ideal.
- Sterilise jars before using.

## RECIPES

### Spiced Vinegar

This is essential for many pickles and will impart a richer flavour if it has been made and allowed to stand for up to a month before using. If your pickling is a spontaneous event, make up a day or even hours before use.

- 5 cups white vinegar
- 1 tbsp whole allspice
- 4 cloves
- ½ tsp peppercorns
- 2 bay leaves

Place the spices and vinegar in a pan, bring to the boil and simmer gently for 5 minutes. Strain, cool and pour into jars or bottles. Store in a cool place, until needed, shaking the bottles once a week. To use, strain and reheat to boiling.

### Summer Pickles

- 5 cups water
- 3 tbsp rock salt
- 250 g zucchini
- 50 g each green and red pepper

- 2 celery stalks
- 300 g green tomatoes
- 240 g carrots
- bulb garlic
- fresh dill or fennel sprigs
- hot chilli peppers, fresh or dried
- spiced vinegar

Dissolve salt in the water and bring to the boil. Set aside to cool. Wash vegetables and prepare: Cut zucchini diagonally into 1 cm slices, remove seeds and pith from peppers and cut into thick slices, cut celery into 5 cm lengths and carrots into thick straws and slice tomatoes into 8-12 wedges. Parboil carrots for 4 minutes. Place vegetables in a large bowl and cover with cooled salt water (brine). Stand for 24 hours, rinse in cold water and drain. Pack into sterilised jars, adding a halved clove of garlic, a sprig of dill/fennel and a hot chilli pepper to each jar. Cover with boiling spiced vinegar, seal jar and store for a month before using.

### Eggplant Pickle

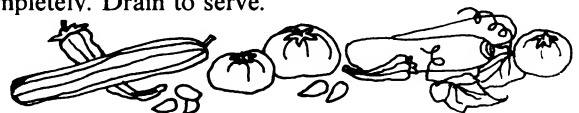
- 1 kg small, (about 5 cm long) eggplants
- salted water
- 4 cloves garlic
- 2 leafy celery stalks
- 1 (80 g) red pepper
- 2 tbsp chopped parsley
- spiced vinegar
- sprigs of dill or fennel
- hot chilli peppers

Remove stems of eggplants and wash. Make a deep cut on both sides of them then plunge into boiling salted water. Place lid on saucepan, turn off the heat and stand for 5 minutes, then drain. Prepare vegetables: cut garlic into slivers, slice celery stalks and chop leaves coarsely, remove pith and seeds from pepper and cut into 2 cm strips. Mix vegetables with parsley and stuff some of the mixture into incisions in the eggplants. Pack into sterilised jars, adding a sprig of dill/fennel and a hot chilli pepper to each jar. Pour hot strained spiced vinegar over egg plants, seal and store several weeks before using.

### Zucchini Relish

- 4 cups diced zucchini
- 1 cup vinegar
- 1 tsp raw sugar
- ¼ cup prepared horseradish
- 1 tsp salt

Place all ingredients in a saucepan and bring to boil. Cool completely. Drain to serve.



# The Virtues of Vinegar

by Rosemary Stevenson, Bangalow, NSW.

Have you ever given much thought to the indispensable nature and versatility of that ancient stand-by of the store-cupboard — vinegar? Maybe not. But it's a condiment we can use more often than we usually do. Perhaps because there aren't expensive advertising campaigns for the various brands, we tend to forget that it will often fulfil a function that we have come to associate with a host of other culinary and medicinal additives.

Vinegar, of course, goes into pickles and chutneys, salad dressings, and all those sorts of things. It can also be used as a disinfectant, a mould remover, and even a vaginal douche. There are plenty of different types of vinegar, too: apple cider, for tang and great medicinal effectiveness, plain white vinegar, for cooking when mildness is wanted, and malt vinegar for a real bite, as in mint sauce.

This article is not about how to make pickled onions, salad dressings, or such-like edibles, as the recipes for those are found in any good general cookbook. But I'd like to share some of the more unusual uses I've found for this pungent liquid. If you are making jam, jelly or chutney, and have lidless jars or glasses, as is often the case, make airtight, sterile covers by cutting squares or rounds of cellophane. In a dish, prepare a mix of approximately one third vinegar to two thirds water. Moisten one side of the cellophane in the liquid. The paper will then stretch to fit tightly over the jar. Then add a small rubber band. This seal will keep indefinitely.

If you run out of your favourite brand of disinfectant, and cut your finger, put some vinegar in warm water to clean out the wound. Here you need a weak solution, so use in the same proportions as you would for brand named disinfectants. In the same way, vinegar can be used to disinfect garbage tins or toilet bowls. And if you find mildew on books or furniture, it can be removed by wiping over with a cloth dampened with a fairly strong solution of vinegar and water, say fifty-fifty.

Years ago my doctor advised the use of vinegar in a vaginal douche. As she said, you can pay for the modern suppositories or creams for mild vaginal discharge, but why not do as our grandmothers did. At the first sign that all was not well, they would try a mild solution of one tablespoon of vinegar to a cup of warm water, as a douche. Just as effectively now as in years gone by, this will help restore the natural acid-alkaline balance. And I've never had to buy proprietary remedies for this situation since then, a good ten years ago.

If a recipe calls for buttermilk, and you don't have any, just add a teaspoon or two of vinegar to ordinary milk, and the effect is to have sour milk, which will do as well as buttermilk in pancakes, scones and similar recipes.

To freshen a room that smells of stale smoke, burn a few drops of vinegar on a hot shovel. And if your hands smell of fish, which does tend to linger, add some vinegar to the water in the hand basin, work up a good lather, and you will no longer smell as if you've just given the cat his daily pilchards in aspic.

Of course there is plenty of folk lore about the virtues of apple cider vinegar, in particular. Mixed with equal parts of

honey and stirred into warm water, it makes an agreeable drink, refreshing if chilled. It is said to prevent colds if taken regularly, by helping to keep the body's acid-alkaline balance correct. Many farmers in North America in the old days added a splash of apple cider vinegar to the feed mixtures of pregnant and ailing animals, sometimes mixing it with molasses, for added vitamins and minerals. From my own experience with goats and chickens, they eat the mixtures with apparent relish.

Although well past adolescence, I have a tendency to get pimples, and although no doubt mineral salts and vitamins have helped, I think that a hint I read in a friend's beauty book, written by a famous New York skin man, has helped more than anything else. His recommended regime consists of washing the face thoroughly with hot water and lots of soap lather, with plenty of rinsing. Then you empty the basin, fill it up with more hot water, add a dash of apple cider vinegar, and again do plenty of rinsing. It keeps the skin very, very clean, and with the right acid-alkaline balance. As well, he says that with this routine you don't need face creams to keep your skin soft, as the skin is stimulated to produce its own natural oils. When I first started this routine, about seven years ago, my skin felt initially tight when I dried it after washing. But I resisted the urge to put on cream and the tight feeling went within a few minutes. Since then I have never used moisturisers on my face, and the skin has remained soft and almost unwrinkled, even after a recent year in the tropics.

These are just a few reasons why I always buy my vinegar in large quantities, as I find so many uses for it . . . and it is undoubtedly GREAT value for money.

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## STOMACH SETTLER

For quick relief from an upset stomach or bilious attack, try the following: dissolve a teaspoonful of bicarbonate of soda in two tablespoons of water, then add the juice of one lemon. Take while it is still effervescing.

Reprinted from *Interaction* No 3, Nov-Dec 1985. PO Box 180, Kingswood 5062.

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## CRYPTIC GRASSWORD

*Continued from page 53*

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# SNAKES THAT VISIT US

## Part II

by Don Lawie, Babinda, Qld.

Don commenced this article with a discussion on the habits of snakes and his and other people's reactions to them. He also described some of the species in rainforest areas and safe and humane ways of removing them from living areas.

For several years after we moved out here I would not consider having chooks, since I had grown up with scrub python attacks on the chook house when living on my parents' farm near the Mulgrave River. Economic circumstances, and our successes with our other rural pursuits, finally persuaded us to give chooks a try. I built a snake-proof chook house, and moved in what I regarded as six sacrificial virgins, — old battery hens discarded cheaply from a chook farm.

The chook house was made from strong gum posts and rafters, covered with ARC mesh on all sides and down into the ground for four inches. The ARC mesh was then enclosed with small mesh chicken wire, and galvanised iron was put on the roof. A snake-proof door of ARC mesh and chicken wire was installed and we awaited our first visit. It didn't eventuate, even though the chookyard was on the edge of dense rainforest. The old battery hens started laying eggs, we put in a rooster, and with lots of care we got a clucky chook and some batches of chickens.

It was after the chickens hatched that we started having problems. White-tailed rats (*Uromys caudimaculatus*), which are rats as big as bandicoots, live in the scrub and are savage omnivores, took a few chickens. Inevitably, the chooks were not locked up one night, and a scrub python appeared.

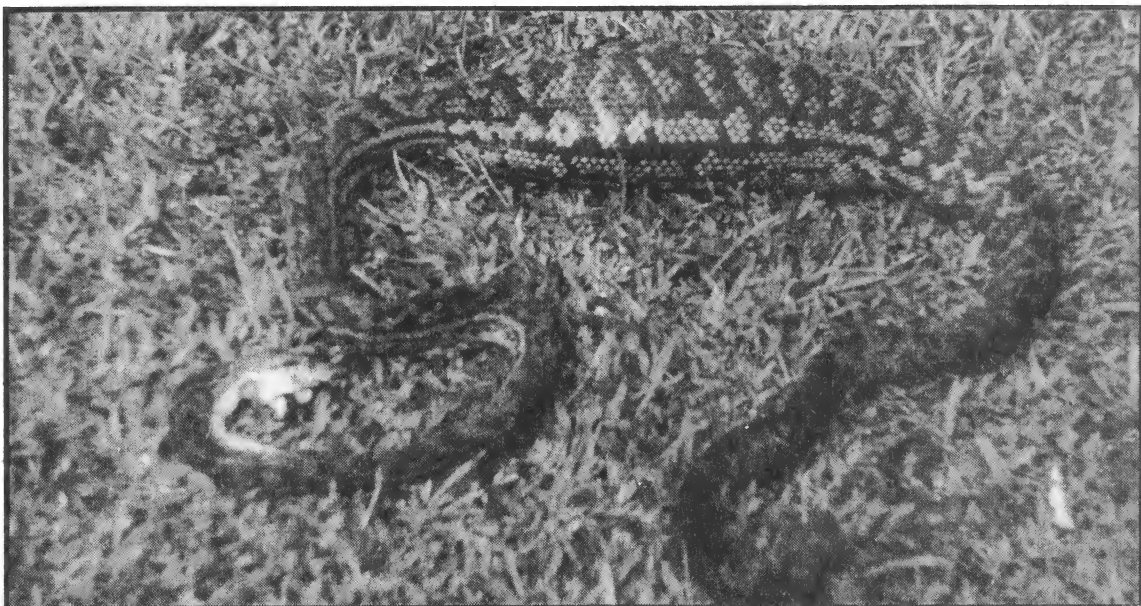
The scrub python, or amethyst python (*Liasis amethystinus*), is one of the more spectacular residents of the tropical rainforest. They are nocturnal creatures, and if you are very lucky on a walk in the rainforest you just may see one asleep on a warm rock, or, according to the books, asleep in a bird's nest fern, but I don't go looking in them, thanks.

The main background colour is amber, overlaid with a very pretty black diamond pattern all along its back and sides so that it is very well camouflaged in the trees which are its main hunting ground. It, too, likes to eat rats and frogs and birds, and when approaching its mature size of four metres it has a large enough body to need either lots of little birds or a few big birds, and domestic chooks are just its cup of tea.

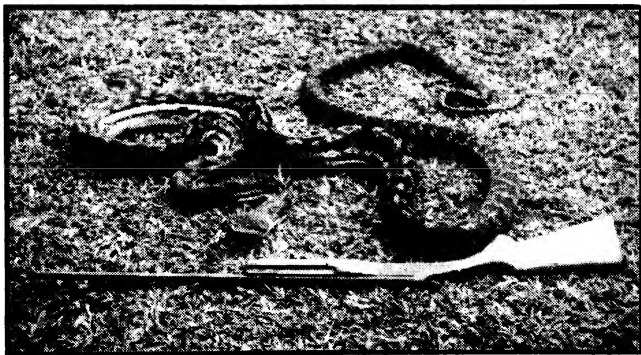
The scrub python, as with all pythons, is not venomous, and kills its prey by crushing with its body coils. It has a very formidable array of teeth which are long, needle like and sharp. Both top and bottom sets of teeth are re-curved (like a shark's) so that once a python's prey is caught in his big powerful jaws it has no chance of escape.

The usual size of pythons we see here is about 3 m (10 ft) long. It is not unusual to see them crossing a dirt road when we are coming home at night, and they can be a nuisance when I ride my little motor bike to work on night and afternoon shifts in the mill. They can stretch right across the road and it's impossible to detour around them. They move very slowly when out hunting at night and take no notice of the bright lights and noise of a vehicle. The lads who live down the road from us make a game of stopping and picking pythons off the road and tossing them into the bushes before driving on, but I prefer to wait until they have made their crossing under their own steam.

We lost our first rooster to a python. The chook house door had been left open, and when Pauline went up in the morning to feed the chooks and milk the cow, she found the rooster crushed to death on the floor. The python was asleep



The distended pattern on the skin of this amethyst python emphasises the victim inside, a hapless fowl.



A large amethyst python which sadly we had to shoot. Nocturnal creatures, they can grow to four metres in length and with their penchant for devouring domestic fowls present a real problem to us.

with a big bulge in his middle where he had swallowed a chook and had remained to sleep off the meal. It would appear that the rooster had died defending his flock, and this same scenario was repeated some time later when we lost our second rooster. The first python was despatched with a shot from the .410 gun. Number four shot in a .410 will kill pretty well anything at short range without the shooter having to worry too much about aiming. The second big python to make his appearance in the chook house killed our second rooster in almost the same circumstances — dead rooster and live snake, but we got to the snake before it ate any chooks this time.

We replaced the rooster with a half bred fighting cock — a mean looking, yellow eyed, beautiful red feathered rooster with a big fluffy neck ruff and long yellow legs. We got him as

a youngster and he won his first fight before his spurs were grown. I heard a disturbance in the chook yard at 3 am, and galloped up with gum boots, torch and cane knife, to find an eight foot python just about to enter the chook yard. I chopped its head off en route and went into the chook house and found another eight footer crouched in the far corner. On the ground in the centre of the house was Gerry the rooster, looking very stropy indeed, ducking and bobbing his head at the snake. I hooked the snake out with the cane knife and chopped its head off also, then found that it had a mouthful of red feathers. So it had apparently had a lash at Gerry, got better than it gave and was awaiting its reinforcements before renewing the attack.

Our python visitors, as does this story, keep getting longer. The latest was found by Pauline, again at the morning feeding time. He had been unable to get into the chookhouse and was asleep under the iron roof resting on the chicken wire cover, causing it to sag so much that Pauline bumped her head on the bundle as she entered the house. She called me up, and since the python was fast asleep I had plenty of time to plan my dispositions. I didn't want to shoot him as he lay since it would blast a big hole in the roof or else damage too much chicken wire, and I certainly wasn't going to try to grab him — he seemed to be of monstrous size. I couldn't let him go, since once these blokes have found a chook house they won't leave it alone.

I finally got the muzzle of the .410 in under the roof and prodded him about until he lifted his head and I got in a lucky shot right behind the ear. The body measured 4.8 m (15 ft 8 in) and weighed 15.4 kg (34 lb). It was over 30 cm (1 ft) around the middle, and it was obviously very hungry, with lots of slack belly skin. The recent cyclone and resultant destruction of the scrub must have caused him to hunt further afield than usual, since big fellows like this rarely leave their scrub trees. We now make doubly sure that the chook house door is shut at night!

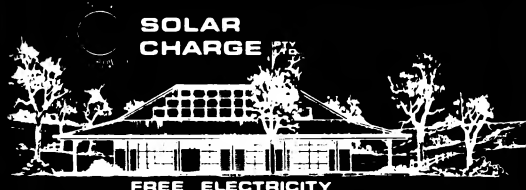
I should point out, in closing, that snakes are protected creatures in Queensland. People are not allowed to hunt them, or harm them in any way, unless they are actually under threat by a snake, and I do my best to comply with the law. I release unharmed as many as I can, and only kill when I feel that there is no alternative.

A handy reference book is *Dangerous Snakes of Australia, an illustrated guide to Australia's most venomous snakes* by Peter Mirtschin and Richard Davis. It looks at thirty snakes, covering aspects like habits, habitat, reproduction, skin-shedding and management of snake bites. Accompanying colour photographs aid identification. The book is hardcover, 208 pages and is available for \$16.50 posted from Night Owl Publishers.

## HEADACHE CURE

For a persistent headache, try the cold to the head type cure. Put your head under a cold tap for 3-4 minutes, and the headache should go immediately and not come back. For a more severe headache, put the feet in cold water at the same time. An extra hint for winedrinks: when your wine cask is empty, take out the foil package from inside the box, rinse out and half fill with water. Place in the fridge, so it's always on hand. In the event of a headache, place on the head straight from the fridge. This is said to be very effective.

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# Batching and Mixing Concrete on the Farm

by the Cement and Concrete Association of Australia.

This is the second in a series on materials, mixing and placing concrete for farming projects. For more detailed information on how to choose the correct materials for a particular job and how to mix them in the correct proportions, refer to GR 64, p. 69.

Not only is it necessary to select the appropriate mix for the job, it is also essential that the materials be correctly proportioned, measured and mixed. Accurate batching will ensure consistency of individual batches of concrete, whilst thorough mixing will ensure complete dispersion of the materials throughout the mix with individual particles of aggregate each being completely coated with paste.

## BATCHING

Having selected the appropriate basic mix proportion (see previous article), it may be necessary to scale these figures up or down to fit the rated capacity of the mixer being used, and certainly make a trial mix. Small mixers are often rated by the number of bags of cement which could be used with a mix containing 1 part cement to 6 parts of aggregate, i.e. 1 bag or 2 bag mixer. Sometimes the rated capacity is the volume of mixed concrete which the mixer will hold, e.g. 100 litres.

If you exceed the rated capacity, the concrete may not be properly mixed. As a general guide, the volume of mixed concrete produced will be 15-20 percent more than the volume of coarse aggregate in the mix, e.g. Mix 'C', with 120 litres of coarse aggregate, would produce approximately 150 litres of mixed concrete.

Volume batching can be successful for farm work as long as some basic rules are followed:

- Store fine and coarse aggregates on a flat, firm and clean area close to the mixer.
- Divide stockpiles of fine and coarse aggregate to prevent intermingling.
- Work out how stockpiles are to be topped up throughout the course of the job.
- Store cement near the mixer, but in a dry and protected area.
- Make sure ample water supplies are available and that containers of a known volume (or a metering device) are available to measure accurately. Allow about 200 litres of water for one cubic metre of concrete.

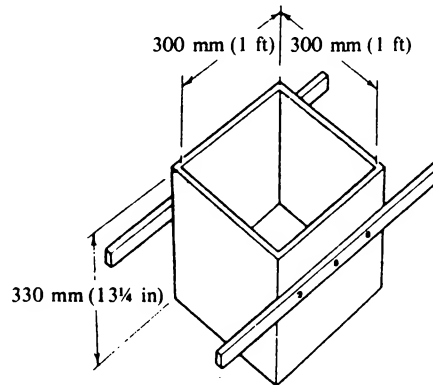
Gauge boxes or buckets of a known capacity should be used to measure fine and coarse aggregate. A combination of different size gauge boxes may prove useful:

Capacity (litres)	Internal Dimensions
10	215 mm (8½ in)
20	270 mm (10½ in)
30	310 mm (12¼ in)

Figure 1 shows a typical timber box of 30 litre capacity. Note that this device filled with coarse aggregate will weigh about 40 kg.

Measurement of cement is best done by using full bags, or by half bags when using mixers of 100 litre capacity. Do

Fig. 1. Gauge box for measuring aggregate.



NOT rely on counting shovelfuls of material fed direct into the mixer.

After carrying out a trial mix, you may need to adjust the proportions to obtain the desired handling and workability characteristics. The correct mix is one in which the proportion of fine aggregate, cement and water enables the trowel to bring up just sufficient slurry to enable easy finishing. Mixes which have too much coarse aggregate will appear 'harsh' and stony. They will be hard to place and finish, which could result in honeycombed surfaces. Remedy: increase fine aggregate, reduce coarse aggregate. Mixes which have too much fine aggregate will be very easy to finish, but will have a high water content, and therefore, lower strength and wear resistance. Remedy: increase coarse aggregate, reduce fine aggregate. Any mix in which too much water has been included will be sloppy and, although easy to place, will take a long time to finish, give a poor surface finish off vertical formwork, and have low strength and wear resistance. If very workable concrete is required, add both cement and water, to maintain the correct water/cement ratio.

## MIXING

Concrete is best mixed in a power-driven mixer, the size depending on the job and the manpower available. Materials should be placed in the mixer in the following manner:

- Add coarse aggregate and a little water. This cleans the drum and prevents 'balling' of cement and fine aggregate.
- Add fine aggregate, cement and most of the remaining water.
- Continue mixing, adding small quantities of water until concrete of the correct workability is obtained.

Mixing time should not be less than 1½ minutes for mixers smaller than one cubic metre capacity. Add a further ½ minute for each additional cubic metre of capacity. Increasing speed above the maker's recommendation does not improve mixing efficiency. Most mixers operate best at between 10 and 20 revolutions per minute.

On small concreting jobs around the farm a mixer may not be available. To mix concrete by hand:

- Measure fine aggregate and cement.

- Heap them on a clean hard surface and mix with a shovel, until the colour is uniform.
- Add the coarse aggregate and turn the materials over until the coarse stone particles are evenly distributed.
- Add water by pouring it, a little at a time, into a hollow in the centre of the pile and turning the concrete over with a shovel until it is uniform in colour consistency. Do not attempt to add all the water at once, as some can run away and wash cement from the mix.

This mixing method should be quite adequate for small quantities of concrete, where maintaining consistent texture of successive batches is not a problem. For larger quantities a mixer is preferable, even if you have to hire one for a particular job.

Information courtesy of the Cement and Concrete Association of Australia, a non-profit organisation sponsored by the cement industry to provide information on the many uses of cement and concrete.

### CRISPY CRITTERS

True or false? Zapping insects with a backyard bug light keeps mosquitoes at bay on a summer's night. False — according to studies by entomologist Phillip Pellitteri of the University of Wisconsin, Madison. Pellitteri found that mosquitoes account for less than 1 percent of the insects killed by electric bug lights. Mosquitoes are more attracted to heat and carbon-dioxide than to ultra-violet light, he says. Even more shocking was the number of beneficial insects lured to their doom. Ladybugs, lacewings and parasitic wasps outnumbered dead mosquitoes nearly 20 to 1.

From *Organic Growing*, Australia, Summer 1987, reprinted from the newsletter of the Doubleday Research Assoc. of NZ Inc, PO Box 39-375, Auckland West NZ.

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## THE WADEVILLE PILOT PROJECT

NSW Govt. supported multiple occupancy (M.O.)



This sustainable community rural settlement project is now well underway. All development conditions required by the local (Kyogle) Council for approval of movable (temporary) dwelling licences have been met; this included a new gravel road entrance and running water supply to each temporary site (for fire fighting purposes).

Eight households have now moved on to the 215 acre property located between Nimbin and Kyogle to the north of Lismore, NSW. Some workshops in communication, conflict resolution and meeting skills have occurred and we are about to begin renovating the existing farm house. A number of households are on their way to joining the project and a few vacancies still exist for joining this first intake of up to fifty percent of the total of twenty eight households. They will eventually form a co-operative, take over title to the land from the Dept. of Housing and then continue to draw loan funds to complete the land development and begin constructing their own homes.

The \$1.25 million available to participants of this project may be drawn on if and as they need it. The initial deposit required of each household is only \$500 and then repayments will be required at 27 percent of household income p.w. In most cases household incomes will need to be at least \$190.00 p.w. Each household may borrow for their home construction as they need it, up to a limit depending on their income level.

The community so far has a strong focus on environmental and interpersonal care and is aiming at self reliance in food and energy production and is considering a variety of income generating concepts.

More details can be obtained by contacting the Nimbin Neighbourhood Centre, Cullen St, Nimbin 2480; mail should be marked Attention D. B. Leggett.

# GREENHOUSE MANAGEMENT

## Part IV

by John Mason, Lilydale, Vic.

In this series on greenhouses and how to use them for maximum productivity, John has dealt with how to select the appropriate type of greenhouse and various ways of meeting plants' temperature requirements. Now he discusses some of the problems you may encounter in the greenhouse.

Pests and diseases can be more of a problem in a greenhouse than outside. On one hand, the greenhouse is contained, which means it can be protected from infection — providing you practise cleanliness. However, once you do get a pest or disease into a greenhouse, it tends to spread throughout the whole house very quickly (partly because the plants are growing so close together, partly because the warmth and humidity of the greenhouse tends to provide ideal conditions for pest and disease problems).

### FUNGI

Fungal problems in particular are of great concern in the greenhouse. All fungi share several general characteristics:

- Lack of chlorophyll — they lack the ability to produce or secure energy, and therefore must live off other organisms, in some cases dead, in some cases alive.

- Structurally they are thread-like filaments (mycelia) which grow inside the tissue they colonise. Fruiting bodies usually emerge from these threads on the surface of the tissue they colonise.

- These fruiting bodies produce thousands of spores at a time, each one having the ability to grow into a new mass of mycelium, infecting new tissue.

Different species of fungi vary from one to another in the following ways:

- The rate at which they affect the organism they attack.
- The severity of the damage caused by fungal infection.
- The ease with which the spores take hold.
- The part(s) of the plant affected by fungal infection.
- The length of time spores will remain viable before causing infection.

### Common Fungal Problems

**Damping Off.** Several genera of fungi are included in this group. Symptoms and control of all are the same.

Symptoms: affecting young seedlings, damping off attacks the roots and base of the stem. A rot occurs where the roots join the stem and the top falls over. The plant then dies. These diseases particularly affect plants which are too close together. Once infection begins it spreads very fast, i.e. it can spread through a tray of seedlings in less than a day.

Control: good hygiene is essential — never use infected soil (preferably use sterilised soil); carefully wash all pots, benches and utensils with disinfectant before planting. Avoid hot, humid and poorly drained situations: use a sandier mixture so that infection can be drained away before affecting plants. Spread seed fairly sparsely and thin out seedlings if necessary to avoid overcrowding. Remove any infected plants and isolate them in a warm dry spot. Spraying with a garlic spray or powdered sulphur solution may help too.

### Powdery Mildew

Symptoms: this attacks a wide range of plants — fruit, vegetables, ornamentals — normally affecting the leaves or fruits; it is most prevalent in warm or humid conditions, particularly if soil is dry. Infection shows as white or grey-white fur or patches. It spreads quickly, causing death to parts or the whole plant.

Control: proper hygiene precautions, as for damping off, are important here too, to prevent infection. Remove and burn badly infected parts of the plants. Use a garlic spray to reduce spread of the fungus.

### Botrytis (Grey Mould)

Symptoms: appearing as a grey furry mould on stems, fruit or other parts, this thrives in humid conditions. It is common on cucumbers and other cucurbits (such as pumpkin), tomatoes, petunias and berry fruits.

Control: careful attention to hygiene — disinfecting all equipment — reduces the risk of infection. Remove and burn infected parts. Reduce watering — drier conditions inhibit the spread of fungal diseases. Garlic sprays are helpful.

### WATER

Plants need both water and oxygen in their root environment. The trick to successful plant growing is often to provide the proper delicate balance between these two things. Too much air usually means too little water, and too much water usually means too little air. In aggregate culture you should usually mix a well draining medium (e.g. gravel) with a water retaining medium (e.g. vermiculite) to gain the required balance of water retention.

In many fruits water constitutes 90 percent of the total weight. In leaves it may be 80 percent, while in seeds as little as 10 percent of the weight is water. Apart from its part in the composition of the plant, water is also important for the movement of nutrients into the plant and the movement of waste products out. Everything in a plant moves in a dissolved form. If water isn't constantly replaced a plant's cells lose turgidity and the plant wilts.

### Water Excess

This is usually caused by poor drainage or overwatering. Symptoms include:

- Development of leggy seedlings. This usually happens when plants are close together and the soil is warm and moist, and therefore is a common problem in glasshouses.
- Appearance of growth cracks in tomato fruit, cabbage heads or carrots.
- Increasing cell size.
- Long internodes (longer gaps between buds on stems).
- Bursting cells (visible under a microscope).

Water excess can lead to stunting, dieback of the top of the plant and in extreme situations death. There is a greater likelihood of infection by moulds, rots and other fungal diseases in a wet situation.

### Water Deficiency

A lack of water can be due to underwatering, a poor root system, excess drainage or extreme heat. In hot or windy conditions water sometimes evaporates from the leaves faster than it can be absorbed through the roots.

Symptoms:

- The first symptom is that the growth rate reduces.
- Leaves become smaller, though still well coloured.
- Stems later become slender, flowers and fruit are smaller.
- On some water fruits, e.g. tomatoes, lemons and peaches, the plant sometimes draws water from half-grown fruit, causing the fruit to shrivel.
- Dieback from the leading shoots can occur, followed by death in extreme cases.

With extra attention to hygiene in the growing environment and careful monitoring of the differing needs of plants, you should be able to avoid these common greenhouse problems.

Part V next issue will discuss the best conditions for cultivating various plants and how to maximise their growth and productivity.

## PENPALS

Hi, I am 14 years old and looking for a penpal any age anywhere! My hobbies are sewing, cooking, biking, hiking, writing, reading, drawing and collecting things. I will answer all letters.

**Maree Grey, RMB 2395 Newstead Rd, FRANKLINFORD 3461.**

Hi. I am nearly 7. I would like a girl penpal. I like horses, writing letters and playing the organ. I live on a small farm and I go to a small school of 22 children. All letters will be answered.

**Emily Flahive, 'Curroon', Johnson Rd, JOHNSONVILLE 3902.**

I am 22 years old, Ghanian and speak English, Iwi and Ga. My hobbies are football, tennis, exchanging post cards and gifts. I would like penfriends from all over the world.

**Alexander Owusu, PO Box 70, OBO-KWAHU, GHANA, W. AFRICA.**

I am a 22 year old secretarial graduate. My interests are music, cooking, dancing and travelling.

**Jesusa C. Facto, Hda. San Roque, HINIGARAN 6010, NEGROS OCCIDENTAL, PHILIPPINES.**

Hi, I'm thirteen years old. I love netball, horse riding and other sports. I like pop music and letter writing. I would really like male penpals age 13-16, especially from overseas. All letters will be answered.

**Helen Buffey, Government Rd, Burrum, M/S 787, HOWARD 4659.**

Hi. My name is Suni Miller. I desperately want a penpal from anywhere but Australia. I am 13 years old and would like someone (preferably non-European) 12-14 years, female. My hobbies are playing the piano, reading and netball. I love animals and enjoy doing lots of things. I write a column in GR Kids Pages.

**Girton College, Box 2, BENDIGO 3550.**

I am male, aged 22 years, and would like to correspond with people all over the world, especially ones from Europe.

**Abraham Mensah, C/- Mr Benedici K. Anokye, PO Box 12434, ACCRA NORTH, GHANA W. AFRICA.**

I am 26 years old, single, with fair skin and long black hair. I would like to correspond with both gents and ladies aged between 25-80 years. My hobbies are collecting stamps, coins and pictures and reading foreign magazines.

**Miss Suguna Sundari, 9-90 Old Merjalguna, Malkajgiri 500047, HYDERABAD, A.P. STATE, INDIA.**

I am 18 years old and a secretarial graduate. I enjoy dancing, music and outings.

**Elsa Dela Banda, 2B Rosario St, Yulo's Park, BACOLOD CITY 6001, PHILIPPINES.**

I am 25 years old and a chemical engineering graduate. I love music, strumming guitar and cooking.

**Evelyn Dela Banda, 2B Rosario St, Yulo's Park, BACOLOD CITY 6001, PHILIPPINES.**

I am 30 years old, a BA graduate and employee who loves cooking, outings and singing.


**Jocelyn Plomantes, Blk 18 Gardenville Subd, Tangub, BACOLOD CITY 6001, PHILIPPINES.**

### HANDY HINTS

Don't throw away the clippings from scented shrubs. Keep them to add to the kindling pile — they make the house smell simply wonderful when burnt on the open fire.

Candles burn more slowly and evenly, with minimum dripping, if you place them in the freezer for several hours before using.

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# Low Pressure Water Systems

by Chris Gade, South Perth, WA.

Many of us in the southern and coastal regions of Australia have, by this time of year, had enough rain to fill our dams and replenish the flow of our rivers and streams, which brings me to the point of writing this article. Many readers have heard of and are already using gravity fed water systems and hydraulic ram pumps. Others have not, and it's mainly to these latter that I now write.

## GRAVITY FED WATER SYSTEMS

What is gravity fed water? Simply, it is water being syphoned by pipe from a higher point, be it tank, dam or stream, to a lower point on the property. The two main requirements for the system to operate efficiently are the height of the supply or 'head', and the size of the pipe used.

Firstly, the pipe: The most common in use is the black flexible poly, which generally comes in 100 metre rolls. It is readily available from plastic pipe manufacturers throughout Australia and is relatively cheap, costing between \$150 to \$180 per roll of 50 mm (2 in) diameter, depending on states and retailers. The most important requirement regarding the pipe is its size. After considerable experience with this type of system, I would recommend that the main feed line be certainly no less than 37 mm (1½ in) and preferably 50 mm (2 in) in diameter. You can, however, branch off your main line in 37 mm (1½ in) or 25 mm (1 in) and off these again in 13 mm (½ in) where desired for stock, house, orchard, or garden.

Other than the type of pipe and its size, the other important factor is the height of your supply. A combination of the diameter of your pipe and the height of your supply determines the pressure you receive at your tap, so naturally the more taps and gate valves that you have opening off your main line, the less pressure each receives. Careful consideration should also be given, if your farm is in the early stages of planning, to possible future extensions to the house, garden, orchard, etc, where pressure will need to be maintained.

Such systems work efficiently, operating at 137.8 kilopascals (20 lbs psi) plus, so to be able to run a sprinkler system with a 9 m (30 ft) radius and open a tap to fill a bath without the pressure of either dropping, a flow of 45 litres (10 gal) of water per minute at 137.8 Kp (20 lbs psi) would be required. Each 6.89 Kp (1 psi) of pressure is the result of 75 cm (2 ft 6 in) of head or height, so for the system to operate at

20 lbs psi, the height of supply would need to be 15.5 m (52 ft). Unfortunately, with any such system there is loss of pressure, due in this case to the friction of the water being drawn against the sides of the pipe, so in order to compensate for this loss, you will need to add to the existing height of your supply, an additional 60 cm (2 ft) for every 30 m (100 ft) of pipe in use, to maintain optimum pressure.

It should be said here that the above calculations are based on operating at 20 lbs psi using 37 mm (1½ in) diameter pipe, but the system can operate at lower head heights provided the diameter of the pipe is increased and it is not too long. Naturally, if you do use 37 mm (1½ in) diameter pipe at lower head heights, then the pressure will be reduced, but this can be easily offset by simply taking your bath/shower before or after you do your watering.

Now to laying your pipeline. Select and clear a path with a good downhill slope, avoiding if possible any sudden undulations in the terrain (these can cause air blockages in the line). Starting with the roll at the top, next to your supply, attach the loose end at the outside of the roll to a tree and roll downhill, following your selected path. In the case of the supply being a stream or creek, I have found it easier to unroll the pipe by the same method and, with the aid of another person, drag it downstream following the path of the river. It may prove helpful to leave the pipe rolled out flat for a few days before pulling it downstream, as this reduces the coil effect and makes pulling easier.

Now, with your pipe in position, cut the end with a hacksaw if it is sealed and secure it underwater at your supply. Next cut the seal at the other end of the pipe and wait. You should have water in about five minutes, ten at the most. If after this time water is not forthcoming and your take off point at the supply is relatively flat, you may need the aid of a motorised pump (available from any machinery hire company) to start the syphon flowing. The good news is that once it is started, it is very hard to stop, providing, of course, that it is never blocked.

Well, best of luck, happy gravitating!

## HYDRAULIC RAM PUMPS

Now, for those of you who thought that you had been left out in the quest for free water because of too low head heights to

Fig. 1. How the hydraulic ram operates.

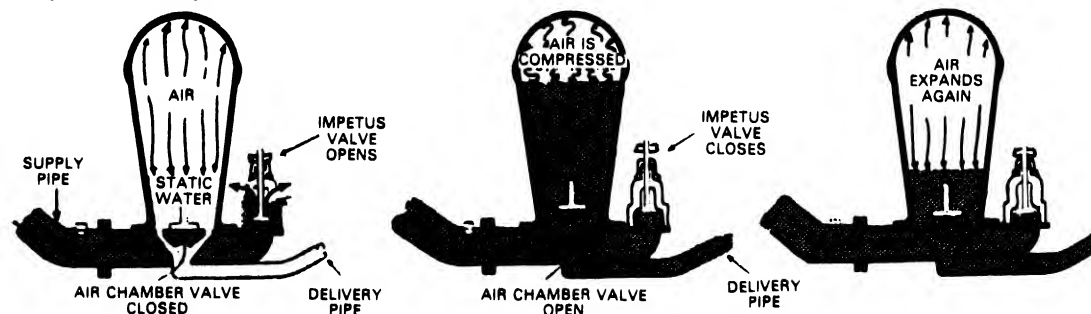




Table 1. Capacities and operating requirements of hydraulic rams.

Ram No.	PIPES		Galls/Litres per min. required to operate Ram		Discharge Capacity per hour		Weight when crated	
	Drive	Discharge	Galls.	Litres	Galls.	Litres	lbs.	kgs.
3	1" 25mm	1/2" 15mm	1 1/4 - 4	6 - 18	10 - 20	45 - 91	55	25
4	1 1/4" 32mm	1/2" 15mm	3 - 7	14 - 32	15 - 35	68 - 159	79	35
5	2" 50mm	3/4" 20mm	6 - 14	27 - 64	30 - 70	136 - 318	119	54
6	2 1/2" 65mm	1" 25mm	12 - 25	55 - 114	60 - 125	273 - 568	198	90
7	3" 80mm	1 1/2" 40mm	20 - 40	91 - 182	100 - 200	455 - 909	377	171
10	4" 100mm	2" 50mm	25 - 100	114 - 455	125 - 500	568 - 2273	851	386

Minimum Fall from Supply to Ram		Height Water may be Elevated		Length of Drive Pipe	
Feet	Metres (approx.)	Feet	Metres (approx.)	Feet	Metres (approx.)
2	.6	4	1.2	12	3.6
2	.6	6	1.8	12	3.6
2	.6	8	2.4	12	3.6
3	.9	15	4.5	15	4.5
4	1.2	25	7.6	20	6
5	1.5	35	10.6	30	9.1
6	1.8	48	14.6	40	12.1
7	2.1	63	19.2	50	15.2
8	2.4	80	24.3	60	18.2
10	3	100	30.4	75	22.8
12	3.6	120	36.4	95	28.9
14	4.2	140	42.4	110	33.5
16	4.8	160	48.5	125	38
18	5.4	180	54.5	146	44.4
20	6	200	60.8	160	48.5

operate a gravity fed system, despair no more, for your pleas and cries are but the echoes of a Scotsman some two hundred years ago who, like you, wanted free running water, or at least so the story goes. Through his ingenuity and canny engineering, he developed a unique yet simple pump that could lift water vertically to heights in excess of 61 m (200 ft) or carry water horizontally for several hundred metres, needing no electricity or other type of fuel. His invention is called the hydraulic ram, for reasons that will become obvious as the mechanics of its operation are explained. Now, while the hydraulic ram needs no electricity or fuel, it does need a constant supply of water, i.e. a spring or creek. It is also essential to have a fall from the head of this supply in order for the ram to operate (see table).

Basically, the ram works thus: water falls from the source down the supply or drive pipe and then runs to waste through the impetus valve until the increasing velocity is sufficient to lift this valve and close it off. (see figure 1). The moving column of water is then directed upward through the chamber valve and compresses the air in the dome until its pressure is equal to that of the water in the supply pipe. The air chamber valve then closes and the expansion of the air in the chamber forces the water up the delivery pipe. Simultaneously, the impetus valve is released and the water flows to waste again, until the increasing velocity is sufficient to close it as before. The process continues so long as the supply is maintained and the pipes are kept clear. A clever piece of engineering indeed!

The ram itself, generally speaking, is almost maintenance free, needing only the replacement of an occasional valve rubber and, if maintained, will pump day and night for up to thirty years. Unfortunately, the volume and force being

pumped by the ram aren't enough to cope with the requirements at your tap, so a storage tank capable of holding continuously pumped water is recommended and water is then gravity fed from there to the outlets.


Two final words of advice for users of both systems: always use a filter on the end of the intake pipe and always bury your main feed line where possible to protect against damage from fire, freezing over, and the sun's rays.

If anyone would like to see a ram pump in operation down on our farm in Manjimup in the south-west of WA, please write to Chris & Elona Gade, Unit 26/6 Manning Terrace, South Perth 6151. For more information and pricing on hydraulic ram pumps, contact the Australian manufacturers, Misal Pty Ltd, PO Box 510, Ringwood 3134, and, for those out west, the WA distributor is W D Moore & Co, PO Box 52, Hamilton Hill 6163.

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### Handy Hint

Fresh hard boiled eggs are harder to peel because of the carbon dioxide level that naturally occurs in fresh eggs. As the egg grows older the carbon dioxide is replaced by air and it becomes easier to peel.



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# RECLAIMING OVERGROWN LAND

by Quentin Jones and Deb Cantrill, Heathfield, SA.

Having noticed several recent inquiries in Feedback regarding removing blackberries and other weeds without chemicals, I am enclosing a short description of 'how we are doing it', which may help other readers.

## BACKGROUND

Over the past 4½ years we have set out to make our 10 acres in the Adelaide Hills viable. Our main crops are chestnuts and walnuts, some of which were here when we bought the farm, are now 10 years old and therefore producing saleable crops. We have planted new areas to chestnuts and various fruits and berries. In the newly cleared land (ex-blackberry swamp — great black soil!) we will be planting a woodlot and growing commercial organic vegetables. We sell our produce under the 'Nirvana Organic Products' label and we're also developing a range of products made from our produce.

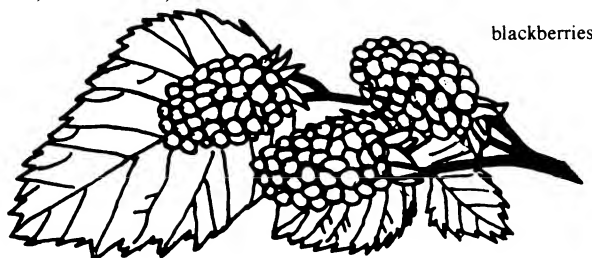
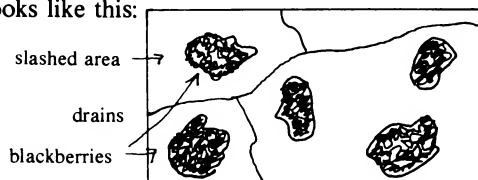
## CLEARING

Before tackling the task of removing the weeds it is necessary to establish the reason for their existence — this may be previous land use, land cleared and abandoned, creek areas overgrown, bushfires, and so on. Our property was half overgrown, mainly because the 'creek' had been clogged by reeds and lost its way, therefore spreading out. Other areas had been cleared and abandoned.

The first step is to gain access. Once the weeds are removed the area can be controlled. We used a bulldozer for the initial stage and, as we wanted to plant nut trees, we terraced the hill for easier access. In autumn we sowed the bare cleared area with a mixture of clovers (see below) and now the bulldozed areas are a sea of green!

The next step was to control the water, so a large drain was dug. We hired an excavator for as far as it could go. A third of the area was too wet for access, so drains were hand dug through the reeds and blackberries. This was difficult, as it was impossible to know where the original creek ran and the area was solid with 2 m (7 ft) high blackberries and reeds. The method of developing this drain required cutting a path through the maze using a hand sickle, then using a hoe and mattock to cut a small ditch. Over the weeks and months the ditch was widened and the area began to drain.

Removing the blackberries and reeds could now start. It was still too wet to burn successfully, so our slasher, a Grovelly 28 inch deck powered by an 8 hp Honda would be used. The slasher deck is out the front and it can slash in forward and reverse gear. The clearing is best carried out in spring-summer. The area is divided into sections with the slasher — it really depends where you can charge through. You may be able to slash a couple of times in the season, each time increasing the area. By the end of summer you may have an area that looks like this:



When the fire bans end you can burn off — having isolated the areas it can be more controlled and the dry weeds from slashing will help the patches of blackberries burn. The non-burnt areas can now be cleared. We used a brushcutter, as the remaining areas were too rough and wet for the slasher. After the slashed areas have dried out the area is reburnt, and when the ashes are cooled the 'seedbed' is generally ideal for pasture establishment, as all competition has been killed off.

## RESEEDING

The process of reseeding is very important for future control of the area. The seeds can be broadcast as soon as the ashes cool, and if the area is rough and uneven it's best to cultivate and level the area before seeding, as this will make future maintenance easier. We hired a small 16 hp 4WD tractor with front bucket and also used our Suzuki 4 wheeled motor bike to pull the harrows to level off.

We chose haifa white and palestine strawberry, both perennial clovers, and for the lower areas we added subclovers karridale and trikkala. All of these are best suited to higher rainfall areas such as ours. For orchardists, these clovers are ideal: as well as fixing nitrogen, they grow to about 60 cm (2 ft) and as they dry off they form a mat on the ground and reseed readily. If you're running stock as well, you'll want to add grasses to the clover — your local seed merchant can help you choose a suitable mix. Remember that some clovers, once established, are very difficult to get rid of, and some are hazardous to grazing animals, so check carefully before you plant.

All clovers used should be inoculated (with bacteria that fix nitrogen). These can be mixed with the clover when needed in a bucket and broadcast into the area (again your local seed merchant can supply the inoculant and any other necessary info).

Now that the weeds are removed and replaced with a useful cover, all that is required is basic maintenance to keep it this way. For us this means mowing the areas — any weeds that now come up are cut off before they flower and although blackberries still exist (and always will because the birds bring in the seeds from other areas) they are 'under control' and can be mowed with relative ease. With continual mowing they will become weaker.

## CONCLUSION

Weed removal is hard work. It takes time, but can be very rewarding when you discover a 'new' area unseen for years. Do only small areas at a time — this way you can see the

results. A small area slashed and reseeded is better than a large area half done. Remember the steps to follow:

- Gain access, by cutting down in sections.
- Prepare seedbed — burn off, cultivate and level if necessary.
- Reseed with suitable useful species.
- Maintain to prevent reinfestation.

As a guide to others, here is a breakdown of our costs:

- Bulldozer \$2000 for 4 acres and terracing
- Excavator \$1000 for 1 km of 30 x 30 cm (12 x 12 in) drain and small dam
- Small self-drive 4 WD tractor at \$100 a day
- Clover seed — approx \$200/4 acres.

There was an unexpected interim bonus from the whole long process. During the clearing, as blackberry patches are isolated, access to the fruit is a snap. We picked blackberries straight into freezer bags. They freeze well and can be tipped straight into a pie dish for blackberry pies in the middle of winter. Yum!

Other approaches to controlling the blackberry problem have been described in:

- GR 22, p. 9, feedback on uprooting, slashing and goats.
- GR 37, p. 91, feedback on comfrey.
- GR 38, p. 93, feedback on goats.
- GR 42, pp. 23-4, a slash, burn and mulch method.

## A T L A S T !!

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# IRRADIATION

## How Safe is the Food to Eat?

### WHAT IS FOOD IRRADIATION?

Irradiation is a process in which food is bombarded with gamma rays, x-rays or electrons which kill insects and micro-organisms that can cause spoilage and disease. Food irradiation facilities use radioactive cobalt-60 and caesium-137 to emit gamma rays which penetrate the food.

The dose is controlled by the amount of time the food is exposed to the radiation. Irradiation by cobalt or caesium does not cause the food to become radioactive, however if high energy electrons are used, this is a possibility. The dose proposed for use in Australia is 10 kiloGrays. This is 10 times higher than the dose generally in use in the U.S.

### HOW DOES IT WORK?

Radiation destroys living organisms. Insects exposed to low doses are killed or sterilised. Medium doses kill some bacteria, moulds and parasites, but to sterilise food (i.e. kill all bacteria and viruses) very high doses are needed.

The intention of food scientists is to achieve a beneficial effect (killing the bacteria) without damaging the food and destroying its nutritional value. In practice this is quite difficult to do. Even low doses of radiation soften the tissues of fruit and vegetables. Many become bruised and discoloured. Cold storage and extra careful handling during transport are often needed. Meat must be vacuum-packed and frozen before irradiation to minimise the changes in colour, flavour and texture. Even so, it may still be necessary to add anti-oxidants, preservatives and flavourings to cover up the

altered taste. Dairy products are especially sensitive to the effects of radiation and develop strong, unpleasant odours.

### IS IT SAFE TO EAT?

- Pathological changes were seen in many experimental animals which were fed irradiated food. These changes included tumours of the testes, kidney disease, immune deficiency and abnormal blood cells.

- In an Indian study, malnourished children who were fed irradiated wheat developed abnormal (polypoid) blood cells.

- Irradiation can cause mutations in bacteria resulting in new strains of pest organisms.

- Nutrients are lost when food is irradiated. Vitamins A, B, C, E and K are reduced, fats become rancid and proteins break down. Stored food loses its vitamins even more rapidly than non-irradiated food stored for the same length of time. Since many irradiated foods will also be cooked, the losses will be compounded.

- When food is irradiated, chemical changes occur. Irradiation produces unique radiolytic products — URP's. These new substances have not yet been fully investigated. The longterm effects of eating food containing URP's are not known.

- International research over the last 30 years has not been able to prove that irradiated food is safe to eat. In fact, the US Food and Drug Administration rejected as inconclusive or invalid all but 5 out of 441 studies. One company that has conducted many of the wholesomeness tests has been prosecuted for falsifying results.

## IS IT NECESSARY?

People who promote food irradiation say that it will extend the shelf life and enable food to be stored for long periods without refrigeration. They hope it will replace the toxic pesticide EDB which is now banned in the US. They say it will have advantages for people in remote areas and will open up new export markets. They ignore these facts:

- Most irradiated raw foods still need refrigeration.
- Many irradiated fruits and vegetables are easily bruised and damaged. Some do not even last as long in storage as non-irradiated items.
- Meat can only be kept for long periods of time if it is sterilised, cooked, canned and cured. The Australian regulations do not allow meat to be sterilised by high dose irradiation.
- Irradiation may not prove to be a safe replacement for EDB. There are too many well-founded suspicions about the toxicity of irradiated food because of the URP's and the rancid fats.
- Irradiation converts fresh foods into 'freshlike' processed products which may look sound, but have fewer nutrients. Health experts advise us to eat fresh fruit and vegetables for our daily supply of vitamins. This may no longer be possible.
- Even if Australia does sell more produce overseas as a result of irradiation, irradiated foods from overseas which are presently banned from sale here will no longer be able to be kept out. These will compete with local produce, to the detriment of Australian primary industry.

## IS IT SAFE FOR THE ENVIRONMENT?

Irradiation facilities use huge amounts of radioactive isotopes. Cobalt-60 decays at about 1 percent per month and so has to be replaced regularly, meaning that large quantities of radioactive materials will frequently be transported through densely populated areas. In the US, workers in two irradiation plants have already been accidentally exposed to massive doses of radiation when proper safety procedures were not observed. Water contaminated with radio-active material has leaked from a US plant into the surrounding area.

## LABELLING

Even though the Australian regulations will require that packaged irradiated food is clearly labelled 'irradiated' or 'treated with ionising radiation', it is not at all clear that shopkeepers will be compelled to label individual pieces of fruit and vegetables. As yet there are no regulations for the labelling of bulk produce. There are no tests that can detect whether food has been irradiated. So, even though the law may require that irradiated food is clearly labelled, there is no way that a food inspector can prove that a shopkeeper has broken the law.

## WHO IS PROMOTING FOOD IRRADIATION?

'The nuclear industry welcomes food irradiation as a way of improving its public image by being able to claim a 'peaceful' use of atomic power. It also offers an opportunity to profitably dispose of waste products from nuclear reactors.

## CONSUMERS WILL PAY

The cost of setting up a plant (\$4 million) plus the cobalt core (\$0.5 million) plus the cost of transport of food to and from

the plant, will all be passed on to YOU, the consumer.

## THE SITUATION IN AUSTRALIA

The National Health and Medical Research Council (NHMRC) which advises the Government on matters of health and safety, has recommended that we start irradiating food and has drawn up standards for the process. Consumer groups, food industry unions, and some members of Federal Parliament have expressed their opposition to food irradiation and their objections to the secrecy with which the standards were drawn up. Under pressure from these groups, the Federal Minister for Health has ordered an independent inquiry which will be conducted by the Australian Consumers Association (ACA).

In the meantime, irradiator facilities in Sydney and in Dandenong are already in operation, sterilising medical supplies, wine cask liners, corks, etc. They are waiting for the Governments of NSW and Victoria to give them permission to start irradiating our food.

If you would like to know more about food irradiation, Citizens Concerned about Food Irradiation (Qld) are an active organisation, distributing newsletters and information sheets, lobbying politicians and organising fundraising activities. As well they have a range of resource material available at reasonable prices. They can be contacted at PO Box 236, Red Hill 4059. Ph: 07-221-9398 (W), 07-824-0316; 07-275-1387 (H).



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# More on Pure Breeds

by Paul Healy, Judbury, Tas.

I was very interested to read Megg Miller's article on purebred fowls in GR 61, and would like to add just a few further comments to what was in general an excellent summary of pure breeds.

## LIGHT BREEDS

In this category, I was surprised by the omission of the Welsummer from the summary of available breeds.

### Welsummer

This is a twin breed to the Barnevelder, both being of Dutch origin and, like the Barnevelder, lays very attractive dark brown eggs of good size. It is a beautifully coloured bird, with both the male and female having a large range of gold, red and brown tonings in their plumage. Although classed as a light breed, the Welsummer produces a reasonable carcass for the table and, with the Barnevelder, is bred to lay eggs in winter when most other breeds have ceased production. You will find that in its second year, a hen from either of these two breeds will start to lay eggs in June and July while a breed such as Rhode Island is still recovering from its moult. The Welsummer is not common, but there are still one or two good vigorous strains about, and I recommend a crossing of this bird with the Barnevelder to produce a vigorous good sized layer of around 230 dark brown eggs a year.

## HEAVY BREEDS

In this section, I was again surprised by the failure to mention the Wyandotte and the Orpington as breeds to be considered for the backyard keeper or small holder.

### Wyandotte

This is an American breed and comes in a variety of colours, the most common of which are the White, the Columbian, the Silver Laced and the Golden Laced. A large bird with a lovely curving back, broad breast and shoulders and a rose comb, the Wyandotte is a good layer of medium sized white eggs, produces a large carcass for the table and enjoys an excellent reputation amongst breeders as a reliable and devoted broody, one which is able to cover a good sized clutch of at least a dozen eggs. Years ago the Silver Laced Wyandotte particularly was quite common on farmsteads and small holdings, and a flock of these birds, or the equivalent Golden Laced Wyandotte, is a beautiful thing to behold against a background of green pasture and trees. The White Wyandotte is also bred as a bantam or miniaturised specimen, and good, hardy strains of these birds can be found in most states.

### Orpington

A forerunner of the Australorp, the Orpington is an English breed and comes in various colours, the most common of which are the Black and the Buff. Although this breed had become quite rare and weakened in its genetic base in Australia by the 1970's, the Buff at least has enjoyed something of a resurgence in recent years, and is now well represented at most fanciers' shows. While the Buff Orpington is a poor layer with only a moderate carcass, for all its apparent

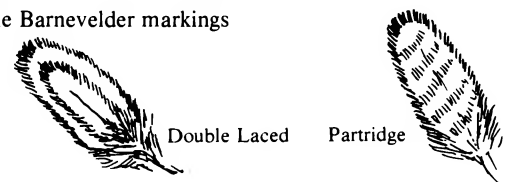
size (a good part of which is feather), it is again an excellent broody, always to be relied upon as a mother. When crossed with a Rhode Island Red, the chickens will show many beautiful shades of cadmium-orange, and a pullet of this cross will lay around 200 eggs a year whilst remaining an excellent

Pure Orpingtons are not vigorous birds, and their plumage will fade out in strong sunlight (as will most coloured breeds, to some degree). However their quiet, placid nature makes them excellent birds to keep around children, and their glorious plumage, ranging from lemon through to cinnamon, makes them a breathtaking sight out on the free range. I recommend that every keeper should think about including one or two of these birds in their flock, either as broodies or for crossing with other breeds.

### Apropos the Barnevelder

Although Megg stated that there is only one variety available — the *Double Laced* — in rare circumstances one may come across the *Partridge* variety. The illustration shows the difference in feather markings between females, and with the males the Partridge has a glossy green black breast, while the Double Laced has breast feathers laced with a black margin around a clean orange background.

Female Barnevelder markings



As is the case with most of the old breeds, good, well marked birds true to British Breed Standards are very rare, and it is a breed badly in need of rejuvenation.

I have found, in the strain I bred in Victoria, that the Double Laced birds tended to lay a glossy, very dark brown egg with great depth and polish — whilst the Partridge birds, produced a matt or dull brown egg with darker brown spots and splodges all over. Whether this tendency is true of other strains I couldn't say.

Sadly I had to disperse my birds when I shifted from Victoria to Tasmania last year, but now I am in the process of starting a whole new strain, so I am looking for any healthy, vigorous birds of this breed. Markings and size don't matter at this stage — health and vigour, and freedom from such deformities as crooked toes are what I am looking for. This year we will be over on the mainland in October, so I may be able to look around for new stock then. I am also anxious to hear from anyone who has had long experience breeding Barnevelders and Welsummers, or cross breeding with these breeds, as I am hoping to rebuild both the Partridge and Double Laced varieties of Barnevelder to Standard type. Please let me know if you have an old timer in the district who used to breed these birds — there must be someone about somewhere.

Happy chook keeping — stick with the purebreds, they're a lot of fun, and can also be quite profitable.



# Down home on the farm..

by Megg Miller



This is the first day for over a week that we've been able to step outside and not immediately dehydrate or melt under the hot sun. For days temperatures hovered around the 40°C and the combination of searingly hot days and stifling nights has left person and beast, or should I say bird, tired and irritable. Several times optimistic looking grey clouds hovered overhead and, whilst they brought a short, sharp burst one afternoon, in the main they've just been teasing. The weather forecast too had been full of promise but somehow any cool changes either blew away or fizzled out before reaching us.

By yesterday we were all starting to wear down, the poultry in particular, and despite regular trips to the sheds with the water bucket several birds, including a lovely big breeding tom, succumbed to heat stress. Others looked dangerously close to joining him but through luck or management made it through for another day. Poultry of course are not well equipped to cope with high temperatures and it's really only good management that makes their environment less stressful and less life threatening. In one shed I visited during my rounds I could hear a loud sound like a beating heart and it was only after stepping out and then in again that I realised it was coming not from me but from a very hot and red faced gobbler.

Anticipating a very hot day ahead I'd gone along in the morning and let out all the breeder hens to fend for themselves but the gobblers, a pugnacious lot, had to stay locked in their respective sheds because of potential fighting. The sheds, being tin, hold the heat, making it difficult for birds to find a cool spot. Several gobblers showed great initiative by standing in their water buckets, a bizarre sight, but most needed a few buckets of water mixed into the litter to form a muddy well that they could stand or flop down in. If they can get water or damp earth close to their less feathered parts they have a greater chance of survival. Fortunately the chooks and guinea fowl, perhaps because of their smaller size, seemed able to cool off in their litter more easily, whilst the ducks and geese just commandeered whatever water containers they could find. The Highland cattle, inspired no doubt by the sight of prostrate poultry under all the trees, sought refuge under a shady peppercorn and stirred only when thirst forced them to arise and drink the nearby chook water.

Carrying water to a few birds here and a few birds there may not sound much, but with about a hundred young turkeys, the same number of keets and chickens, some ducklings, plus adult breeders in all species, it adds up to a lot of buckets and it's not surprising that by night fall we're dead beat. You can understand our relief, then, when we woke up today and found it cooler — the jobs awaiting us may be the same old ones, but with a breeze on the face and spring in the step they can be finished in half the time.

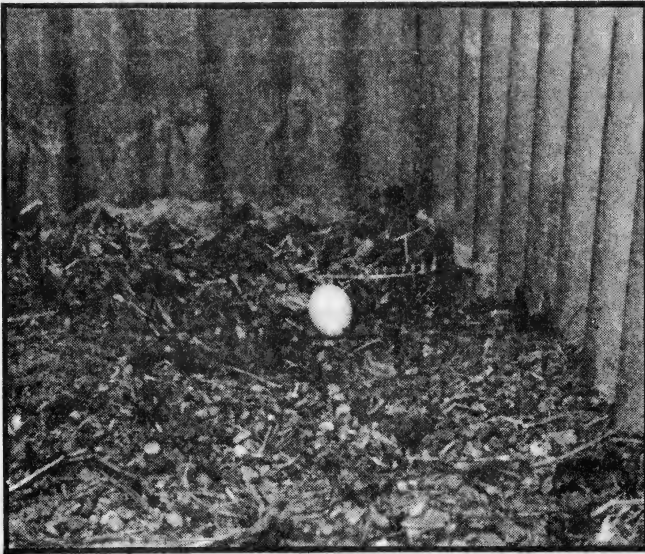
I must confess that many times this last week my thoughts have drifted to airconditioned flats and lush suburban gardens — and I've felt very tempted. It can be a hard life in the country, especially during the extremes of summer and winter, and although immense satisfaction may be elicited from the work you do, rarely is the monetary reward equal or even remotely equal to the hours that are put in. After the weather we've just had, a person could be excused for questioning why so many of us choose to pursue a rural or semi-rural lifestyle. But that's another story, isn't it?

Back in December we were not troubled by heat but by lashing rain and wind. Early December the weather turned nasty and damage from wild storms and floods was felt statewide. We were lucky that our area was only lightly hit but we do have some semi-permanent reminders of it. The wind had whistled across the paddocks, lifting the roof off our original pigeon loft and up into the peppercorn trees; it deposited the ducklings' A-frame onto the roof of a nearby car, broke up a second A-frame into flying pieces and moved a large 12 ft by 10 ft red gum pigeon loft over the fence and left it standing upside down on its roof. You can easily imagine the bedlam which resulted from all this, with pigeons, chickens and ducklings fluttering everywhere in the pouring rain. The girls in the office had watched horror stricken as it happened; David, caught in the house until the rain let up, had been unaware of it and I was away for a few days. It took our emergency workers hours in the driving rain to catch and rehouse the terrified birds, and in the end the pigeons got the better of them and they gave up, wet and exhausted. I had been gently forewarned over the phone of 'a little damage' but was quite unprepared for the degree of destruction apparent when I returned.

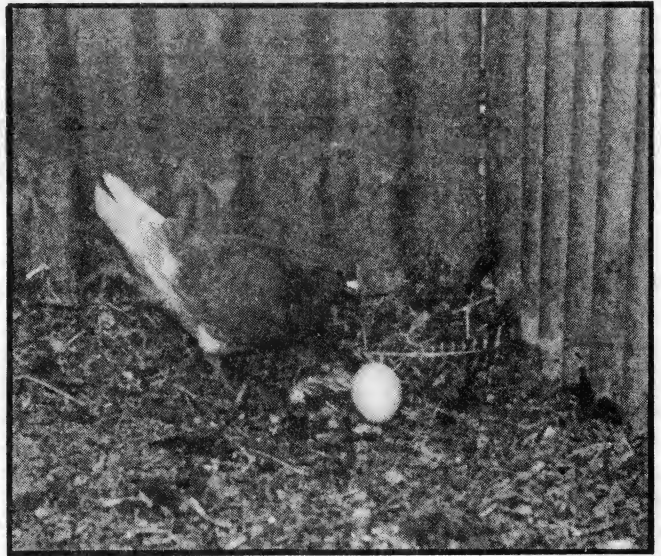
We've rebuilt the A-frames but the two lofts are beyond repair, so while we ponder on their replacement the pigeons have been settled into a couple of turkey sheds. It's not unlike high rise living — turkeys on the ground level, pigeons perching on the first floor. It's not really a satisfactory arrangement but it will do short term, and so to discourage breeding we haven't added any nesting boxes. Not to be deterred, several little Modena hens started sharing the nesting box with the turkey hens and how they've escaped suffocation I'll never know. One broody hen discovered a lone turkey egg in a corner and with eyes bigger than her body set about claiming it (see photos). Although she's sitting determinedly at the moment, it can't be comfortable balancing precariously on such a large egg, and I imagine she will give up in disgust after a few days.

We've had a glut of eggs from the poultry this season and it's only now, after days of high temperatures, that the majority of hens have stopped laying. Only the geese proved

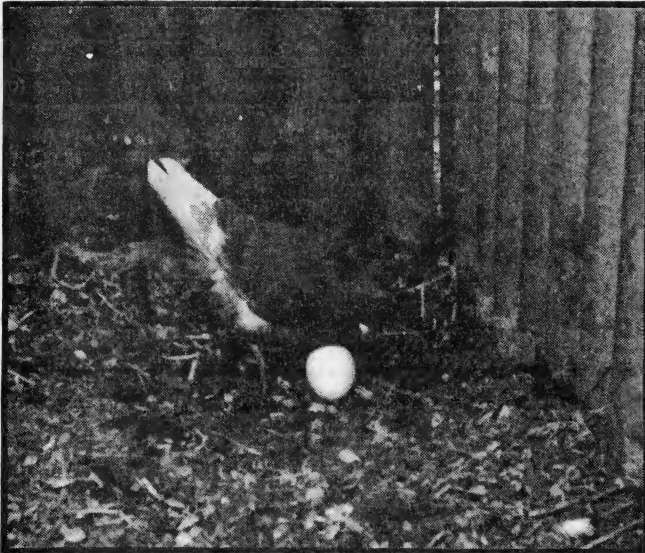
The Maternal Optimist!



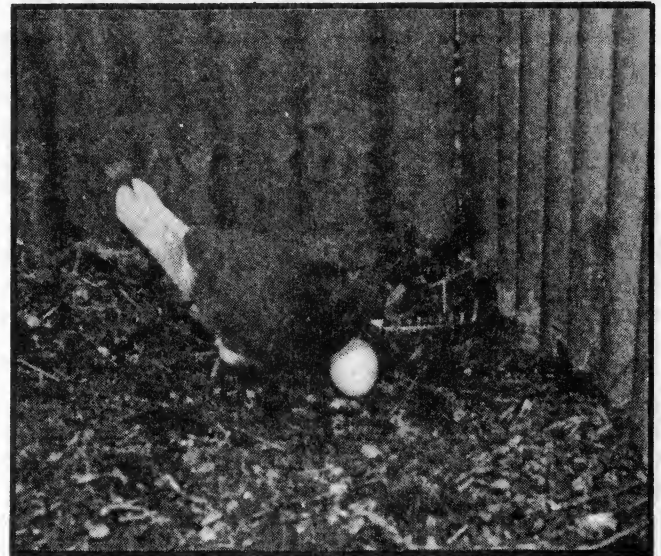
A lone turkey egg in a quiet corner of the shed.



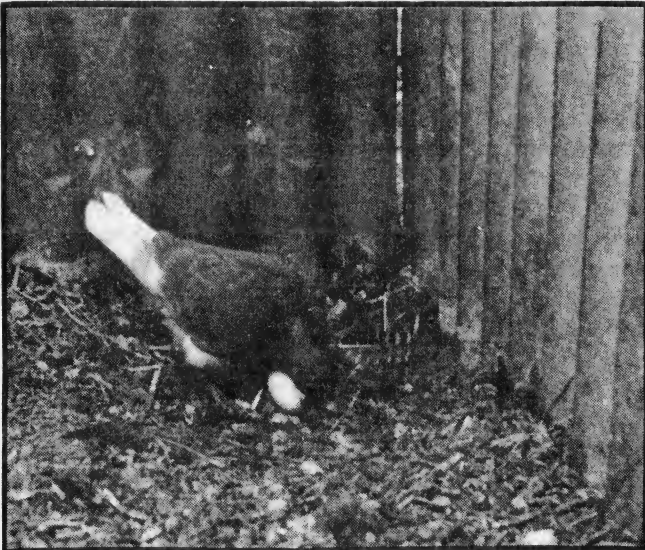
The pigeon hen spies it and measures it up for size.



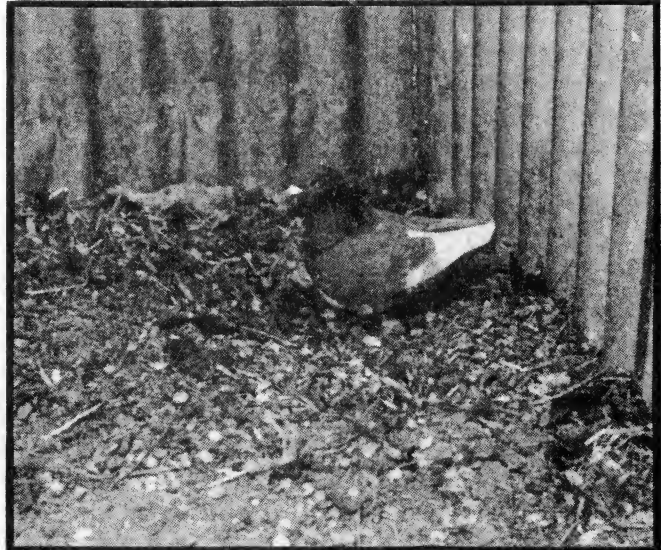
She moves closer to it and checks that she can in fact stand over it.



A wiggle or two of the breast and a gentle roll and it's coming closer.



Gently she positions it in place and . . .



There she has it, tucked neatly under — and maybe just a mite uncomfortable.

disappointing — they laid a single clutch that failed to hatch and showed no interest in fronting up for a second one. The turkeys, ducks and chooks have been wonderful, and being well supervised have laid their eggs in their sheds for easy collecting. But, as ever, there are a few tricksters that manage to sneak off and lay a clutch in protected seclusion. Some hatch successfully, a proud hen turning up with a family of young, but many lose heart and leave their clutch to rot. Just how many discarded nests there are I've no idea but many times this week parts of the garden have resounded loudly as old eggs exploded in the heat. I suppose it is an occupational hazard but I can't imagine anyone getting used to the smell of rotten eggs.

I omitted mentioning the guinea fowl when discussing eggs because their habits are so different from other poultry. Being essentially a wild bird, no self respecting guinea lays where the eggs can be discovered unless necessity forces them. By January there is little cover left in the paddocks so they drift down to the fruit trees and garden, seeking out the wormwood and mint for their nests. They congregate in noisy family groups, bickering and fighting and are a great nuisance to us. Mostly we discover the nests after they have been abandoned and it's a shame to see the waste of fifty plus eggs. One large nest I came upon this week was camouflaged in the hollow trunk of a peppercorn tree with three broody hens trying to cover a sea of eggs. Such communal sitting never works as the hens continually steal each other's eggs and in the process allow their own to become chilled. It took a few days to build up the courage to attack the nest and I approached it with gloves and a bag for protection. Once I had the hens off I had to continually flap the bag to keep them away whilst simultaneously collecting and sorting the eggs. I'm wary of broody guineas as I once had my face ripped open by one, so it was nerve-wracking for all of us but as there were 85 eggs there were obviously plenty for all and I left enough for the would-be mothers to share. I was relieved to get away without injury and glad no one had driven past whilst I was so employed — they would have really thought I'd flipped.

With eggs to be collected and young birds fed, it's been wonderful having Sunshine home to help. She's not a great self-starter but she is always willing to run errands and do little jobs and has regularly helped with the feeding of a night. An extra pair of hands cuts the job by half so I'm not looking forward to letting her go back to school again. She's changed in many ways after a year away, more mature, more independent, prepared to wash and iron her clothes at a pinch, but it was the same old Sunshine who left biscuits and a drink out with her pillowcase for Father Christmas. 'Aren't you too old for that?' I'd queried. 'Don't be silly Megg, it wouldn't be as much fun for either of us!'

So Father Christmas dutifully called again and left presents for all — a dozen identical brown socks for David, a French tape for Suni, a much desired book on pheasants for me. We have a little tree each year and open some of our presents before heading off for lunch at one of our parents' places. This year Suni prepared a special breakfast of pikelets so it was with buttery fingers we ripped and exclaimed over our booty. Two presents caused much hilarity, both David and I found we had bought each other half a dozen teaspoons.

It may seem a strange present, but I regularly take the teaspoons outside for use with the chooks' vitamin mix and lose them. This infuriates David so I'd had the brainwave of giving him his own personal half dozen, unaware that he too was thinking the same. All we need to do now is have our names engraved on them! A second amusing incident involved Suni's letter to David, in the guise of Father Christmas. Having received a handwritten note with his kindly advice for years now she felt it time to reciprocate. Alas, it fell rather flat. First he was struck silent and then spluttered and stuttered at the audacity of it all. We've been sworn to secrecy regarding its contents and are definitely not to mention things like lateness, unfinished manuscripts or messy room.

Our Christmas celebration was a quiet family affair, especially poignant as my mother was terminally ill and we guessed it would be our last together. It wasn't the same as in the old days, but my father and I did a respectable job of preparing the traditional fare and then after lunch everyone retired and snored the afternoon away. Sadly it was my mother's last celebration with us as she peacefully died a few days ago, after many years of fighting cancer and a number of other debilitating illnesses.

She was an immensely capable and practical person whose skills and achievements put most of us to shame. I recall as a child little that was store bought. She made jam, pickles, sauce and relish, bottled fruit and tomatoes each year, salted down runner beans, dried apples and various herbs, made many of our clothes, turned worn sheets and mended clothing and linen as well as cooking all the food we three children and my father consumed. Of course as we left home and she grew older and suffered ill health, some convenience foods appeared on the shelves, but even during these last difficult years she soldiered on with help from my father and stocked the larder with enough preserves and bottled fruit for the next decade. Having gone through the Depression years and then the rationing of the Second World War she believed in 'waste not want not' and hoarded the most amazing things just in case — rubber bands, bottles, paper bags, material scraps and a lot of our good but outgrown clothes. When Sunshine was born she was able to give me some of the lovely handknits and smocked dresses I had worn as a babe, all in perfect condition naturally. Looking through some papers and letters she'd put aside, my father found the last pound note her father had given her, and some ration coupons from the last war. Then there was her button collection . . . People of her generation didn't need to read philosophical books about the whys and wherefores of self-sufficiency, it was second nature to them. When I announced I was 'dropping out' all those years ago she wasn't bothered; I had a tertiary education which she's supported me to pursue 'educate a woman, educate the family' — which I could fall back on and all this doing it yourself was after all normal.

Although our lives will be sad and bereft for some time there are a lot of happy and humorous memories to recall and talk about and there is a lot for me to think back upon and be grateful for. Much of the person I've developed into — my philosophical beliefs, love of animals and nature, practical abilities — has its origins in the nurturing and foresight of a wise and selfless woman.



# GRASSIFIEDS

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**INVERELL DOUBLE BRICK 2BR** house on two large town blocks, power, phone, sewer, kerb & gutter, solid older type quiet area. \$40,000. Ph: 045-721-150.

**GOOD CEMENT BLOCK 2-3BR** home. W/W carpet, 2 open fireplaces, combustion electric stoves, garage, ¼ acre, rates \$200 Tingha. Inverell, 2600 ft ASL, best clean healthy area NSW. All amenities, sapphire mining about to boom. Price \$24,000, take caravan too, for \$4000. Ph: 067-233-573, owner. 3 Opal St. TINGHA 2369.

**MID NORTH COAST** fronting Pacific Highway, modern 2BR home, electricity, phone, water, on 10 acres. 100 fruit, nut and ornamental trees, lovely lake views, plenty sheds, large dam, fully fenced, house cow, chooks, goats. Selectively cleared. Self-sufficiency in comfort. Ph: 065-565-294.

**GLEN ALICE AREA**, east of Mudgee NSW. Unique secluded property, well appointed 290 acres with permanent water, comprising creek flats and hill country. All cleared except 25 acres good ironbark timber. A spring is situated towards the rear of the property with a spring-fed creek and homestead area situated central to the property. A well provides excellent drinking water. Some established fruit trees, stockyards, small enclosed 15' x 12' shed, larger shed 60' x 30' (round timber frame but no cladding). Fencing is old but responding well to a restoration program. Stone homestead was destroyed by fire. The property is peacefully situated at the end of a 10 km lane which terminates at the gate. Suitable for sheep, cattle, horses or goats, small cropping, turf farming or irrigating lucerne. The property could be worked by two families. Asking \$87,000. Ph: 02-680-1975, ask for Ken.

**BATLOW** — 150 ACRES (subject to survey) prime orchard country, 2 permanent creeks, town water, power available, 4 km to town, schools, shops etc, beautiful views of snowy mountains, suit organic apple grower. \$135,000. Ph: 069-491-104.

**NSW CONGO** 13 acres. Large 3BR home, v. large shed, outbuildings, ocean views, dams, permanent spring, suitable horses, goats, sheep, cattle. 6 km Moruya. \$230,000. Ph: 066-853-410.

**SUNNY CORNER** 2 x 35 ACRES freehold, one with weekender, other has development consent for dwelling. Superb NE views. Adjoins timbered reserve, 2½ hours west of Sydney \$55,000 each. Ph: 063-514-379 AH.

**NORTHERN NSW** 12 acres, two titles, huge organic garden, excellent soil, permanent creek, roadside stall, sheds, yards, fenced paddocks, large trees, power, phone, 3 km village. \$24,000 or excluding 3 acre paddock \$20,000. Ph: 066-645-164.

**FAR NORTH COAST NSW** 5 acres, Casino's exclusive subdivision. Phone, electricity, septic, K & G. Partly fenced, shade trees, no flood, rural outlook. 40 min beaches, 2 minutes Casino PO. Forced sale \$31,950. Ph: 066-722-310.

**FAR NORTH COAST** 20 min to Lismore. One year old 5BR house on sixty acres. Solar powered plus gas, telephone, fire place, 10,000 gallons water, 10 x 7 m, lock up garage on concrete slab, 50 acres selectively cleared balance valuable timber, 3 dams with creek boundary and fenced plus many more extras. \$85,000. YORKLEA via CASINO. Ph: 066-637-149.

**KEMPSEY LAND** 40 acres \$30,000 or offer. Ph: 02-944-286, 02-913-3733.

**ORGANIC CROPS AND GRAZING** ideal. Ample spring water, dams, lush 27 acres. Tractor, sheds, stables, orchard. Comf. 4BR home. 2 hrs beach, walk school, shops 15 mins. rates \$90. Must sell due illness. \$69,000. Ph: 067-342-270.

**KEMPSEY NSW** 100 acres freehold, permanent creek, power, phone, school bus nearby. Rain-forest gullies. Plenty of stone and timber for building. \$37,000 negotiable. Ph: 065-669-367 evenings or write PO Box 205, WEST KEMPSEY 2440.

**NSW — 50 ACRES BUSH RETREAT** 3 km Tumbarumba, small new timber and rock cottage, wildlife, mossy rocks and trees, beaut alternative lifestyle. Plus adjoining 95 acres, subdivisible. Two sheds, tractor etc. \$65,000 the lot. PO Box 164, TUMBARUMBA 2653 or Ph: 069-482-639.

**NSW — EDEN AREA** in hills north of Vic border — 40 acs with creeklet \$21,500; 100 acs with small river \$36,000; 2 bigger blocks also. Ring Nancy Ph: 047-841-020, or write 'Land', Box C63, Clarence Street, SYDNEY 2000.

**LEASE OR SALE** 82 acres of bushland near Bermagui NSW with large house. Further information Ph: 062-381-097.

**NORTH COAST** 100 acres. 30 km north Grafton. Partly cleared, good timber. Dams, billabongs, boundary fenced, cattle yards, shade-house. Comfortable Besser cottage, solar/gas equipped, telephone, school bus. \$59,000 neg. Ph: 066-477-023.

**MACLEAN-WOODFORD IS.** 80 acres, timbered, hilly, creeks. Two BR stone house, workshop, carport, adjoins state forest, fenced two boundaries, own power and water, phone, 35 mins to Grafton, 15 to Maclean. 25 to beach. Couple divorced, must sell. \$72,000. Write Toni York, Lot 4, Richardson Rd, PARKERVILLE 6553. Ph: 09-295-4009.

**TWO 5 AC PROPERTIES TWEED** Valley, north eastern NSW. Creek and road frontage and power. Adjacent to permaculture farm. Close to large area of national park. \$31,000 each. Contact Lea Harrison, Stoddarts Rd, TYALGUM 2484. Ph: 066-793-242.

**60 ACRES POWER, WATER.** access 10 mins to town, school bus, postal service, local shop, one minute away. 30 acres flat fully cleared. Remainder selectively cleared. Reduced to sell \$57,000. Ph: 065-669-251.

**BUSH RETREAT** on 50 acres 8.5 km north of Kempsey, timbered with 2 dams, huge brick house with S/C stove, septic, 2 tanks, shed, fernery, glasshouse, chookrun, established gardens, irrigation pump, orchard, bananas. Beautiful landscape and lawn. House interior needs finishing. Forced sale \$95,000. Ph: 065-668-078.

**NORTHERN RIVERS** 67 ha, 27 km Grafton on beautiful permanent Kangaroo Creek. Tallow wood, pine, oregon, passive solar designed, energy efficient house, veranda all round, French doors, leadlight windows, 50V solar power system, solar hot water system, 75,000 lt tank water, 2 dams, 30 fruit/nut trees, 2000 tea-trees, 4000 alternifolia, rainforest area, 4 ba, new stock yards, alluvial flats, sands, bridges, sealed road, phone. Primary school, general store, sports facilities 10 mins. \$137,000. Ph: 066-493-015 David Kanaley. Kangaroo Creek via Grafton 2460.

**NUMBER OF APPROX 100** acre blocks freehold, timbered, undulating wth small areas that can be cleared, kangaroos, wildlife etc. 12 miles north to north west of Glen Innes from \$18,000. Apply John Donaldson 264 Grey St. GLEN INNES 2370 Ph: 067-323-095 day, 067-323-294 night.

**25 ACRES NORTH COAST** creek boundary, fully fenced, partially cleared, ideal hobby farm, power and phone handy, 30 mins town 45 mins beach, \$22,000 ONO. Ph: 066-624-577.

**SOUTH CASINO.** 300 acres of beautiful bushland, with permit to build. A wealth of timber; permanent creek frontage. Excellent value at \$24,900. Also, nearby, 100 acres: \$19,900, & 1500 acres for \$75,000. Ph: 047-514-848 or write to PO Box 39, SPRINGWOOD 2777.

**KEMPSEY** 28 acres of secluded hilly bush, 25 km west of Kempsey. Half fenced, phone and power available. Rain and dam water only, good housesites, good positions for dams, permission to build with no restrictions. 3 km to small town. \$20,000 ONO. Phone Roger 062-416-767.

**URBENVILLE** 30 km south of Qld border. 55 acres of undulating lightly timbered land with approx 25 acres cleared. Adjoins small piece of crown land with 100 ft waterfall on permanent running creek and is 3 km from Yabra state rainforest. 2 dams, stock yards, hay shed and partially built living shed with septic, electricity and telephone connected. Bitumen road frontage with school bus service. \$40,000. Phone Don Jensen 044-221-916 after 6 p.m.

### QUEENSLAND

**GYMPIE SECLUDED** 57 acres freehold hilly bushland, small A-frame house on slab, state forest 3 sides. Phone, solar power, concrete tank, wood stove, hot water, shower, permanent dam, easy access. 11 km south of Gympie. \$65,000. Ph: 02-476-1149.

**DEADLINES: GR 66 — FEBRUARY 29TH**  
**GR 67 — APRIL 29TH**

# GRASSIFIEDS

## PROPERTY FOR SALE

### QUEENSLAND

**QLD — COOLOOLA COAST** hinterland beautiful fully renovated, 3BR home on 10 acres. 12 mins Gympie. 3 springfed dams, fertile north slopes, lots fruit trees, solar power (12/240V), new gas fridge, combustion stove, lots more. \$95,000. Ph: 071-833-860.

**BETWEEN ROCKHAMPTON/MACKAY** on Bruce Hwy. 1½ acres, landscaped block beam home, owner built 6 yrs, 2BR, lounge, dining room, 2 sunrooms, kitchen with wall ovens/pantry, interior toilet, bathroom, laundry, 10' x 10' fish pool, stone fire place, tiled floors, bookcases, built in w/robes. With attached 32' x 16' workroom, sheds, bush houses, 250 bearing fruit trees, custard apples, pawpaws, passionfruit, grapes, etc. 4 km to virgin beaches, islands, rainforest. 300 m shops, ambulance, school, railway. Plus: council-approved craft centre 26' x 18' building, toilets, parking, landscaped. The lot \$48,000 WIWO. (Also available: adjoining 1½ acres, water & light on, \$12,000, plant nursery stock ½ price.) Ph: owner 079-502-240.

**FOR SALE CENTRAL QLD.** Peaceful private 26 acre property. Superb mountain views and abundant water. Land suitable for small crops and animals. 12 acres grassed, rest bushland. New orchard, vegie patches, chicken and duck pens, horse yds and many sheds. All this plus a quaint older style 2BR cottage with power, phone, septic and combustion stove. Only 1 mile from swimming and fishing spots. Perfect property for those who wish to be self-sufficient with some modern comforts. Reluctantly reduced from \$62,000 to \$54,000 for urgent sale. Ph: 079-741-278.

**APPLE TREE CREEK** 45 km sth Bundaberg. 1½ acres parkland, some fruit trees with U/G irrigation. Ideally suitable small crops, dam, excellent bore. 3BR house most tastefully decorated throughout. Huge fully screened verandah. Garage, laundry, elect, phone, sealed road, school bus. \$47,500. Ph: 071-261-689.

**NANANGO SUGAR COAST QLD** 6 acres, power, phone, fenced, school bus, tar road, 2 miles town. Council receptive to alternative building. Soil on site assayed for mudbricks. Open to offers \$12,500. Ph: 063-843-320.

**FOR SALE** 8½ ha fully equipped central Queensland farm, house, etc. Basically self-sufficient. WIWO \$36,000 ONO. Ph: 079-853-281 12-3 pm.

**108 ACRES.** One hour SW Brisbane. Near Grandchester. Creek, dam, ready access, rolling foothills, level panoramic building sites, sweeping rural views. Part cleared, part tall native timbers. \$48,000 ONO. Ph: Rod Hilling 070-513-499.

**MARYBOROUGH QLD,** beautiful 95 yr old Queenslander on 9 acres. 2 titles, permanent dam, rainforest creek and windmill bore. 3 large bedrooms newly carpeted, polished floorboards in lounge and dining. Newly renovated kitchen and bathroom, sunroom, laundry and beautiful wide verandahs. Lovely surrounds with many established plants, trees, including fruit and nut, and vegie garden. 10 min from town on bitumen road, power on and phone. Family commitments force us to sell. Priced at \$80,000 reduced from \$90,000. Ph: 071-231-583.

**COOMINYA** 40 acres natural bush, some cleared, house 2BR, verandahs, LPG gas stove, fridge, hotwater, solar powered lights, water pump, septic toilet, 5,000 gal tank, bore on property, school bus available. \$60,000 ONO. Photos available. Alex Mair, 9 Kennedy St, WEST IPSWICH 4305. Ph: 07-281-5875.

**MILLMERRAN** 1 hr Toowoomba, lovely home on outskirts town, acreage with fertile soil, good fencing, power, water, phone. \$42,000 negotiable. Ph: 074-542-437.

**SUNSHINE COAST** organic farm, 11 acres, established permaculture, featured ABC-TV, sub-tropical fruit, nuts, vegetables, poultry, healthy self-sufficiency. Large brick home, s.c. flat, 15 mins beach, 1 hr Brisbane. \$180,000. Ph: 071-421-897.

**40 ACRES WONDAL**, partly fenced, dam, previously part cultivated. Quote July '87 elect. max \$4000, phone \$210. Mud brick allowed. Sale due to family reasons. \$25,000 ONO. Write Mr/s Allison, 58 Cribb Ave. OXFORD PARK 4053.

**CRAFT VILLAGE IN NTH QLD.** Following the nation wide response to Pat Browne's letter in GR 59. Battle Creek Crafter's Village now has another 30 freehold blocks available, from \$5000. Also 3 houses remain at \$12,000. Only 10% deposit for this Craft Village. Contact Bob Mutton, PO Box 65, MT GARNET 4872. Ph: 070-970-188.

**TROPICAL FARNORTH QLD land.** Three freehold blocks 22, 10, 5.7 acres. Permanent running creek, irrigation licences, telephone, electricity on boundary, side road 5 km Bruce Hwy. Potential unlimited, brown salwood growing naturally, top banana soil, tropical fruits, ideal barramundi farms. Prepared to lease back 3-5 yrs. Have to sell. Ph: 070-669-354 7-9 pm.

**30 ACRES TARA REDLAND ESTATE.** Cypress pines, ideal private retreat. Urgent sale. Ph: 097-611-965. Private sale \$15,000.

**GOOMBURRA VALLEY QLD** 36 acres, mainly cleared, some re-growth, partly fenced, excellent soil, dam, small quarry at front. Sealed road, power and phone available. Underground water in area. 35 minutes from Warwick, 1 hour from Toowoomba. Bus to primary and high schools. \$20,000 ONO. Ph: 07-203-4793.

### VICTORIA

**GENOA DISTRICT** 72 acre timbered property in secluded position at the head of small valley bordering state forest. It has excellent building sites, situated approx ½ hour to coastal resorts Mallacoota and Eden, \$33,000. Ph: 051-588-240.

**JEERALANG MOUNTAINS** 100 acres natural forest. Some cleared, 40 x 25 shed, weekend living quarters, upstairs bedroom, spa bath. Good access, ample water, self sufficient, power. \$78,000. Ph: 051-342-533 A.H. Geoff 051-661-532.

**18 SQ MUDBRICK HOME** on 40 acres. Solar power, wood heating, many features. Established irrigated orchard. Machinery and hay sheds, four dams, good soil, secluded yet 14 mins Bendigo. Reluctant sale \$140,000. Ph: 054-353-525 A.H.

**DEADLINES: GR 66 — FEBRUARY 29TH  
GR 67 — APRIL 29TH**

**OTWAY RANGES** large 4BR home on 5 acres & 8 sq old style bakery serving devonshire teas, good tourist trade with pleasant outdoor eating area, incredible views of permanent creek, unlimited potential, training available, keen to sell, moving interstate. \$110,000 ONO. Ph: 052-358-281.

**SEA LAKE VICTORIA** 4BR weatherboard, carpeted, carport, garage, triple workshop, fruit trees. Includes adjoining block, barn, native garden, tank, town water. Town facilities, sewerage, sporting facilities, primary schools, high school, doctors, ambulance, hospital, recreational lake 10 km. Suited GR family, seasonal work. \$45,000 ONO. Ph: 050-701-146 Ian or Mary. No agents please.

**ST ARNAUD 22 ACRES,** 2 caravans, shed, tank water, dam, state forest on boundaries, very peaceful spot. Good for mudbricks. \$16,500 ONO. Ph: 03-557-2500 Leonie.

**TWO ACRES RIVER FRONTAGE** 8 sq m house 90% finished, phone, no SEC, 50 mixed fruit trees estab, flower and vegie garden. \$18,000. Further details write to M. Sullivan, RMB Chandler's Ck via CANN RIVER 3889.

**OTWAYS RAINFOREST** 15½ acres, (1 cleared). Perm water, telephone, young fruit trees, vegie garden, private yet close to school, shops. Site ready for split level mudbrick house including plans. 10 mins from beach. Temp dwelling includes 24 ft caravan in 30' x 30' shed, slow combustion stove, running hot water. Lots of potential \$38,500. Ph: 052-373-287.

### TASMANIA

**HASTINGS BAY SE COAST** 12 acres, close to water, good housesites, aspect, access, timber, power, phone. Abundant unpolluted fish, wildlife, wildflowers, bay views. \$16,000. D. Wynter PO Box 46, FRANKLIN 7113.

**MIDLAND HIGHWAY** set back w/board farmhouse on 2 ac. Insulated, 2BR, 20' L/dining room, new free stand slow comb woodheater. Lge kit, carpeted throughout, power, town water, phone, septic, bay window. Easterly slope, good fences, soil, gar/sheds. School bus, local store, club, 95 km Launceston 106 km Hobart \$30,000. Treers, C/- PO, TUNBRIDGE 7120. Ph: 002-552-178.

**BEAUTIFUL DOLPHIN SANDS** mid NE coast, 10 acres, level, tarsealed road, 120 m swimming beach, middle Great Oyster Bay. 10 min drive or 5 min outboard to township of Swansea. Good spring water, ample fish, lake behind, very clear air. Near Wineglass, Coles Bays. \$21,000 ONO. Write B. Smith, 'Starlight', MUDGEE 2850. Enquiries promptly answered.

**ST. MARYS** 2BR house edge of town with verandah overlooking natural forest to mountain. Timbered on three sides, has double car-port, workshop and bunkhouse with stable on property. Mains water and electricity. \$42,500. PO Box 80, ST. MARYS 7215. Ph: 003-722-357.

**TASMANIA W. DELORAINE** 125 acres, forest n/park on 3 sides. Lots of fences, beautiful mountain view, cave on land. Mudbrick cottage 50 m, power, shed, cattle yard. Permanent water, gravity fed garden, established trees. Good access through all land, ½ clear, Telecom. \$55,000. Write M. Chollelt, Main Rd, LIENA 7304. Ph: 071-944-569.



# GRASSIFIEDS

## PROPERTY FOR SALE

### TASMANIA

**FINGAL, TASMANIA** — 3BR W/B house, large lounge & kitchen, 4 plate electric stove, combustion stove with hot water, carpets, curtains, blinds, light fittings, outbuildings, lawns, fruit trees. \$27,000. Ph: 003-742-116 or 003-722-386.

**KING ISLAND** — comfortable, well constructed 3BR home on large block. Sit 20 mins from Currie amongst lush farmland. Close to unspoilt beaches and native bushlands. Well known island landmark, offers potential to generate income. Ideal opportunity to enjoy relaxed rural living for \$30,000 ONO. Ph: 056-231-014.

**OYSTER COVE**, 30 mins south of Hobart, 5 acres beautiful fertile land in peaceful setting. Fruit trees, large garden. Comfortable 2/3BR brick house, newly painted inside, open fireplace, slow combustion heater. Good workshop, outhouses and chicken sheds. Bitumen road frontage. Lots of potential \$80,000. Ph: 002-292-864.

**HOBART** — large Federation house, tastefully restored, 4BR, huge living area, on 1 acre with tree lined creek, views to Mt. Wellington, 10 mins GPO \$130,000 ONO. Ph: 002-722-835.

### COMMUNITIES

**SHARE IN MANDALA** community, south east Queensland. Mudbrick house on hectare, power, phone, septic, water. \$33,000. Malcolm Roach, 181 Russell St, TOOWOOMBA 4350. Ph: 076-323-176.

**NIMBIN**, alternative powered showplace. Fourteenth share in experienced, caring, registered community. 8 dams, rainforest creek rising in adjoining national park provide ample water for irrigation and power (600 ft head). 2 yr old house, verandahs all round (photos). School bus at gate. \$60,000. Ph: 062-880-109. T. & J. Ellis, 1 Darwinia Tce, RIVETT, ACT 2611.

**SE QLD** 10 acre share 1200 acre farm. Mudbrick shack; various small sheds, fruit trees, windmill on well: good position bordering creek. Mountains in background. Private company ownership. 20 shareholdings. Currently reviewing constitution to favour environment protection. \$17,000 ONO. C. Hoare, Rose Rd, TUNTABLE CREEK 2480. Ph: 066-891-478.

**ONE TENTH SHARE OF 468 ACRES** on beautiful Mt. Warning. Semi-rainforested land, surrounded on three sides by National Park. Permanent creek water and wildlife abound. 10 mins Murwillumbah, 15 mins Coolangatta on sealed road. Price \$15,000. Ph: 03-818-4525.

**WELL BUILT 2 BR** log cabin, septic, solar lighting, plenty water, slow combustion stove, near river, beautiful Mann River valley. Multiple occupancy approved. Ex Glen Innes. \$35,000. Write to Bond, C/- PO, PALMERS ISLAND 2460. Ph: 066-460-317 AH.

**WAUCHOPE** 370 acres 2/4 shares available in The Magik Farm. Wildlife sanctuary, no dogs/cats. Vegetarians preferred. Homesites 25 acres, partially cleared, grassed & ready to build. Permanent creek. \$30,000 (with water frontage) & \$20,000. Ph: 065-875-167.

**FAR NORTH COAST NSW** 1/15th share in Serendipity Community south of Woodburn, northern NSW. Share includes 10 acres, 4BR house, large shed, 7.5 kVA generator, greenhouse, telephone, a/g swimmingpool, various fruit trees, plenty of water, community tractor and implements. Part ownership in remaining 650 acres. Ideal place for nature lovers. Be surrounded by eucalypt forest, heath and national park, wonderful wildlife and flora and close to untouched beaches and river. 20 min to shops. Unique legal set up. Price \$49,950. Please Ph: 066-218-939 or write to Rosemary Zillig, 46 Ubrihien St. LISMORE 2480.

**NORTHERN NSW** share in secluded property. Upper Clarence River. 6000 acres, mostly timbered ranges, pockets of 'dry' rainforest, cleared river flats. \$15,000 share includes 20 acre house-site. Ph: 07-300-3195 or 09-337-4316.

**TAREE AREA** quick sale is sought for one fifth share in 1300 acres beautiful mountain bushland. Half hour drive from town. Housesite well underway, underground power, water supplied from permanent spring, two dams for watering lovely cottage garden terraces, land heavily timbered with permanent creeks, mountain peak, wildlife. \$35,000 neg. Anna Sexton, Little Run Rd, WHERROL FLAT 2429. Ph: 065-554-205.

**ONE 1/15th share** in 535 acre community farm in Towamba valley in south east NSW. Approximately 35 km from Eden and 15 km from school and shop. Mudbrick and timber dwelling, 2 large sheds, chicken run, cow bale and paddock, dam, creek, rain water tanks. No power, solar lights, phone connected. Established gardens, including a variety of fruit trees, usable land in idyllic bushland setting. \$30,000. Ph: 02-560-3161.

**LILLIFIELD COMMUNITY** has 330 acres of beautiful land in the hills between Lismore and Murwillumbah, about 15 mins from Nimbin, 1 hr from the coast, fully approved by the local council. The land is owned by an incorporated company but each member's shares give entitlement to about 5 acres for private use. Members also share in over 100 acres of common land, available for recreation, forestry, agriculture, etc. as well as use of the Community Meeting House, the tractor and other equipment. The Daystar Rudolf Steiner School is on adjoining land. The basic framework of roads and dams has been completed and our initial membership established. Now we are looking for more people to help us move into the next stage of our community. People who will respect this beautiful land as well as each other. The share price of \$13,800 per household entitles you to all community facilities as well as to possession of your chosen 5 acre site. Please write to: 'Lillifield', Lillian Rock, via NIMBIN 2480 or Ph: 066-897-224.

**MOORA MOORA** situated on the top of Mt. Toole-be-Wong, one and a half hours drive from Melbourne, is a well established co-operative community of 6 clusters in 640 acres of bush and agricultural land. We seek a limited number of new families to join existing members whose interests are largely conservation, owner building, health, craft, music, agriculture and schooling. Write to 'Membership', Moora Moora, Box 214, HEALESVILLE 3777.

**FAR NORTH COAST** 35 km Lismore, immaculate 2BR steel frame cedar-clad home on 1 ha elevated block. Beautiful views. Hundreds of trees planted. All amenities incl septic system, 24V solar lighting and 240V solar power system, gas HWS, frig, stove and heating. 26,000 lt water storage tank and pressure pump. Small tool shed. Reluctant sale at \$55,000. PO Box 655, LISMORE 2480. Ph: 066-337-177.

**SHARES AVAILABLE** in Coondoo Farm Co-op. High rainfall, close to Cooloola coast and Noosa. Fruit orchard, 3 dams, native bush, shares \$5000. People interested in Co-op involvement and residence contact Lynne Ph: 075-481-375 or Sue 071-867-212.

**FAR NORTH QLD** shares available in cross-denominational Christian community of (at present) 7 families on 87 ha (215 ac) at Kuranda (30 km nth of Cairns). Council approved multiple dwelling, est orchard, perm creek, all services available. Future aims include Christian outreach, providing community help, accommodation, etc. Contact Seven Springs Farm, PO Box 110, KURANDA 4872. Ph: 070-938-718.

**CHRISTIAN MULTIPLE OCCUPANCY** NE NSW seven shares on 150 acres, share and small cabin \$15,000 or shares up to five acres \$10,000 each. Ph: 066-293-367.

**NOOSA HINTERLAND:** ocean and mountain views, cleared land, spring-fed dams, state forest 3 sides, private rainforest waterfall. Individual title plus 30 acres common. 5 to 25 acre lots \$30-\$50,000 for organic growing/ environmentally conscious lifestyle. 5 mins to Lake Cootharaba, 25 mins Noosa surf, bitumen access. Ph: 07-399-7154.

**'DOLPHINIA'** now happening, lush valley 6 km from Denmark south coast WA. Part of a larger community of friendly people. Horticulture/personal growth work/enjoyment in being there. Other words: co-operation, consensus, privacy, optimism for a fast-changing future, responsibility, laughter. Ph: 098-481-248 Carla. Stay, work/enjoy. 8 shares at whatever you can afford.

**ONE SHARE** (7½ ac, 50 ac commons) left in 10-share MO on 136 ac near Nimbin NSW. Beautiful views, rainforest gullies, fertile arable land. Maximum privacy. Phone, electricity available, school bus, secure company title. \$13,500 Ph: Gwen 08-388-6704 or write Mark Taranto, C/- PO NIMBIN 2480.

### TO RENT

**TO LET** Sth coast NSW 2 BR house, ocean views, minutes to beach, shop, Conjola Lake. Excellent fishing, surfing etc. large organic garden & greenhouse. Long lease to right person, couple or single parent. Rent neg. Ph: 02-449-4797 for more info.

**2 BEDROOM COTTAGE** east of Gympie, 30 acres. Fruit trees, 12V power, 360° views, outdoor shower, loo. Needs caring person/s to rent for \$30/week. Ph: 071-821-869.

### PROPERTY WANTED

**CITY FAMILY** seeks 20 to 100 acres within 100 miles of Perth. Must have water and plenty of trees. Freehold or lease. Ph: 09-342-4413 or write 20 Findon Crescent, BALGA 6061.

# GRASSIFIEDS

## BUSINESS FOR SALE

**NOT JUST A BUSINESS for sale.** Here's an opportunity for someone who would like to enjoy the enormous benefits of living on the far north coast of NSW and still make money. Granny's Homemade Icecream returns \$14,000 per annum for 3 days work a week and could make a lot more with a little effort. The asking price is \$29,000 plus stock. Wholesale/retail. For further information write to: The Advertiser, Blindmouth Rd, Main Arm, MULLUMBIMBY 2482. Ph: 066-845-404.

**URGENT SALE, NURSERY BUSINESS.** 'Mim's Mail Order', 8 years established, with a good reputation. Specialising in herbs, old world perennials, rare species plants, seed and herbal products. Am seeking purchasers with an interest in this special line. \$6500 ono. Ph: Norma Kahler 045-763-486 BH & AH for further details.

**SELF SUFFICIENCY FOR SALE.** Yes folks, we've been at it for 12 years and it's time for new blood and new heart. Is there anyone out there wanting to buy the original alternative energy and homesteading supply business? Not to mention a chance to move to a nice part of the NSW coast. Priced to sell at \$10,000 plus stock and plant (an additional \$60,000 to \$80,000 depending on stock level). Current turnover approx. \$250,000 pa. You can keep it in Kempsey or move it. We'll stay on a while and help a new owner settle in. Ideal for active couple, serious enquiries only please. Contact us at Shop 3, Cnr. Clive and Forth Sts, KEMPSEY 2440 or phone 065-627-704. Talk to Brian or Peter.

## WANTED

**WANTED ORGANICALLY GROWN** chickpeas, alfalfa, lentils, wheat, brown rice, mung beans, mail bulk price to J. Prins, PO Box 242 KURANDA 4872.

**CREATIVE CARPENTER** seeking innovative interesting work either with a creative builder or anyone with the gall to try something different. Emphasis on working with natural materials, particularly timbers. Country regional areas of northern NSW or Queensland. Please contact Charlie Coles. Ph: 02-593-547 or write to me at 155 Wollongong Rd, ARNCLIFFE 2205.

**QUIET PLACE TO LIVE** preferably self-contained on farm or community farm, warm climate for man 37, vegetarian convalescing. Can do some manual work. M. Bedingfield 'Wee-Wah', Hilltop Road, BERRIDALE 2628.

**LOOKING FOR A PERSON,** preferably female to share house and expenses, in Carlton, Fitzroy areas of Melbourne. I am a single mother (aged 30 with son aged 3), part-time student at Melb. University, feminist, politically left-wing, semi-vegetarian also into personal growth, conservation and grass roots lifestyle. Anybody interested in setting up house ring Anne Ph: 03-428-6667.

**ONE OR TWO PEOPLE** wanted to help care for elderly lady and to develop alternative lifestyle property near Sydney. Write Caretaker, Box 184, PANANIA 2213.

**DEADLINES: GR 66 - FEBRUARY 29TH**  
**GR 67 - APRIL 29TH**

**I'M LOOKING FOR** a small block of land (community or other) to buy. I would like it to be north of Sydney and on the beach. Hoping to hear from you nice gentle folk. Caroline Ramage. 4/40 Beach Rd, BONDI 2026.

**YOUNG MAN** looking for farm work in SE Queensland area. Used forklift, chainsaw, fruit-picking, etc. Pref. on site accommodation. Ross, PO Box 364, Ahern's Rd, CONON-DALE 4552.

**SILK WORM EGGS** (white cocoon). Lot 254 Loton Road, MILLENDON 6056.

**WANTED TO RENT** in June '88 - small house and acreage for cheap rent by 2 adults, 1 child and 3 cats around Rosewood (Qld) district. Ph: 07-391-8493 anytime.

**NATIVE PLANT materials,** wattle blossom, gum nuts, etc. All types, fully dried, native materials considered. Large quantities preferred. Good prices plus freight paid. Contact: Peter Hunt, P.O. Box 53, NORTHCOTE 3070. Ph: 03-489-8405.

**PRACTICAL PEOPLE WANTED.** Singles, families, retired etc. to share organic 100 acres that I own. Northern NSW. You would have chance to settle (long term or temporary), sharing some work and good times. About me - male 44 vegetarian, non smoker. Charly, Box 56, TABULAM 2470.

**PRE 1950 MELBOURNE NEWSPAPERS** for private collectors, prefer larger quantities i.e. ex-library holdings, boxfuls, shed lots. The more the better, please no single issues or lino stuff. Also will consider old magazines. Ray Nichols, Box 2145, RICHMOND SOUTH 3121.

**LOOKING FOR** caretaking/rental arrangement in exchange for labour/money. We are a small group of GR people currently living in Sydney who want to firstly experience away-from-city life by renting or caretaking property sometime in 1988 for 3-6 months approx. Preference for sthn. highlands, south coast. Gayle Russell, 29 Lloyd St, OATLEY 2223. Ph: 02-576-429.

## SERVICES OFFERED

**ASTROLOGICAL READINGS** - become more aware of your strengths and weaknesses. Understand what motivates and drives you. Learn how to channel your energies for positive living. Send birth date, time, place with \$15: 'Capricorn', C/- PO ASHBORNE 5157.

**AROMATHERAPY** massage oils and treatments. Totally natural products blended by diploma qualified natural oil therapist. Range includes Psoriasis Oil - if it does not help you I'll refund your money! For list send 37 cent stamp to S. Lawrence, PO Box 540, BALWYN NORTH 3104.

**HAWKESBURY FARM AND GARDEN** service, horticultural advice and services. Planning, design, land assessment, orchards, crop care, tree surgery, tree care, landscaping, garden improvements, technical advice. Can teach skills if required. M. Carey. Qualified Agri-turist 045-765-703.

**LEARN TO COMMUNICATE** with your Spiritual Guides and understand your personality/psychic gift order - special profile - write Gavin Greive PO Box 37, NORTH BEACH 6020. Consultants all states.

**FASTING FOR HEALTH** and rejuvenation, vitality, longevity, natural weight correction. Meditation, reflexology. Away from city smog in cosy country retreat. Write to Koorinal Three-Bridges, via YARRA JUNCTION 3797. Ph: 059-667-296.

**SOLICITORS** - NORTHERN NSW for all aspects of criminal defence, land transfer, multiple occupancy and subdivision. Contact Andrew Dozer or David Spain at Andrew G. Dozer & Co, Main Street, STOKERS SIDING 2484. Ph: 066-779-323.

**THE PRIMAL PLACE.** A way into the unconscious to end suffering and be truly conscious. The Primal Place is a group of people who have primaled (felt) their way beyond the limitations of therapy. Feel the real you. There is another way to 'be'. An environment for self help, self learning, self healing, spiritual exploration. A way of life through Primal. Peace, harmony, contentment. The Primal Place, PO Box 193, GOLDEN SQUARE 3555. Ph: 054-413-683.

**HOROSCOPES** There's more to astrology than what you read in newspapers. 12 page computerized interpretation PLUS 10 page mini crash course in Astrology. Send \$20 by cheque/MO payable to Othmar and print date, place, time of birth and your name, phone and address. Send to Othmar 2/385 Barkly St, ELWOOD 3184.

**REDUCE STRESS** - lose weight, feel younger, stop smoking. Dr Ann Wigmore's wheatgrass and living foods programme. Comfortable accommodation, thorough training, family atmosphere, low prices. Write or phone for free details now. Hippocrates Health Centres of Australia, 21 Monaro Rd, MUDGEERABA 4213, GOLD COAST. Ph: 075-302-860.

**THE EMERALD CIRCLE** is available to help you once again. Healing tapes and book lists on request. SAE please to PO Box 800, NOOSA HEADS 4567.

**QUICK BRICK** economical, easy to use, fast (makes two at a time) brick making machine. Use either sand cement or soil cement mix. Solid steel construction, most comprehensive instructions supplied. Make easily 500 per day, only \$135. Phone or send SAE for brochure to Quick Brick, PO Box 627, GYMPIE 4570. Ph: 071-824-313, AH 071-827-364 or visit us at 54 Chatsworth Road, GYMPIE.

## OPPORTUNITIES

**MOORA MOORA COMMUNITY** has a vacancy for caretaker of our community centre. We require an honest, friendly person or couple with organisational ability and a liking for people. Accommodation provided. Not necessary to be a member but welcome to apply. For information write Ian Campbell, PO Box 214, HEALESVILLE 3777.

**HELP WANTED** for farm family. Few hours weekly in return for small SC bedsitter with gas fridge, 12V power/lights, in tranquil secluded bush setting. Suit couple, single parent, small family. Write P. & A. Smith, C/- PO MT BEAUTY 3699.

**TO PERSON INTERESTED** in organic farming, will negotiate leasing 1 acre and caravan. No alcohol, drugs etc. Please contact 'Ste Tree', PO Box 6024, M/C CAIRNS 4870.

# GRASSIFIEDS

## OPPORTUNITIES

**LOOKING FOR** (two) people to help me build my house of timber and stone, a couple of days per week, in exchange for free accommodation (2 bed caravan) and pocket money, negotiable, in beautiful Upper Clarence Valley. Horseshoeing, swimming, bushwalking etc. Uta, Two Waters Farm, TABULAM 2470.

**INVESTMENT OPPORTUNITY WANTED** German family want to settle permanently in Australia under the 'Business Migration Program' (BMP) and want to enter into a joint venture with an Australian partner. A capital of A\$150,000 or more can be offered. The project must meet the objectives of the 'Business Migration Program' (BMP, Category 2, Entrepreneurs) and should be socially and environmentally benevolent. Please write to Robert Kuchta, PO Box 295, Palembang, INDONESIA.

**OPPORTUNITY FOR A LADY OR MAN** over 50. Non drinker, non smoker, honest. Caravan available with phone, no power, rain water only, no wage for any who like secluded life in 1.075 acre bushland mountains. I'm 60 years of age, French, living an alternative lifestyle — half hour from Bathurst. If interested, please contact Ph: 063-377-253.

**FREE RENT** offered to genuine GR handyman/caretaker with own transportable accommodation, on small bush property near Daylesford. No smokers, drinkers, drug user or pets. Reply Funny House, 76 Spring Ave, SAILORS FALLS 3460.

**WANTED CARETAKER** isolated bush property, 3BR house, no electricity, cheap rent. Ph: 071-714-383. Steck, 20 Bertram St BUNDABERG 4670.

**TEACHER** with 3 ha land Atherton Tablelands interested in setting up special school in happy therapeutic residential setting for children with behavioural and emotional problems or special education needs. Potential parents or potential staff please write. Also any potential financial supporters and interested government officials. G. O'Callaghan, BATCHELOR 5791.

**CARAVAN SITE** to honest reliable couple in return for help on 25 acre mixed GR farm, share produce. Ph: 043-761-337.

**PARTNERSHIP OFFERED** in well established hydroponic farm. Your knowledge isn't essential, but welcome. Write to PO Box 26, KIAMA 2533.

**COUPLE, YOUNG FAMILY** or single mother, for caretaking a small camping ground in the greater Daintree rainforest, plenty of room to grow a veggie garden and some animals, no wages but very little work required. Write to Annie Laughton, PMB 19, Rainforest Camp, Cape Tribulation Road, via MOSSMAN 4873.

**RAINFOREST CAMP** layback camping ground just minutes from beautiful beaches. Surrounded by greater Daintree rainforest, hot showers, horse rides. Children, dogs welcome. Rainforest Camp, Cape Tribulation Road, 20 km north Daintree River. See previous ad.

**SHARE, CARE, USE** ¼ ac. garden bounty? Own 1BR cottage, option bungalow, \$50. Elsewhere: converted bus, pretty garden; share bathroom. Pref. co-operative fem. \$30. Sally Clarke, Gray St, MALDON 3463. Ph: 054-752-624.

## EXCHANGES

**SWAP 29' 6"** sloop, kauri planked, single cyl diesel, spinnaker, main and two foresails, safety gear, will swap for land (share/whole) around \$20,000, cash adjustment. Eoin O'Flathartaigh, 1/407 Glebe Pt Rd, GLEBE PT 2037.

**EXCHANGE FULLY FURNISHED** self contained dwelling, 2 BR, East St, Rockhampton, attached to shop (currently hobby/book), exchange for land, preferably Queensland. If you think you can help write to 313 George St, ROCKHAMPTON or Ph: 079-223-9111.

## COURSES

**LEARN GUITAR BY CASSETTE.** This excellent beginners course will teach you to play guitar with no previous experience of music. Instruction book and cassette cover tuning, chords and solos. Compiled by top professional musicians & teachers. Cost \$25 (post free). Order from Brunswick Publications, PO Box 252, CROYDON PARK 2133.

**MUDBRICK & mudbrick** design workshops with Brian Woodward at Earthways, Hunter Valley. \$90 includes vegetarian meals. Send SAE to Earthways WOLLOMBI 2325.

## HANDCRAFTS

**SANDALWOOD** suitable for carving or aromatherapy and perfumery. Origin Queensland. Good value at \$25.00 a kg post paid. Limited stock. Please send your orders with cheque or money order to Sandalwood Products, PO Box 169, LINDFIELD 2070. Minimum quantity 500 g.

**SPINNERS:** Coloured mohair and wool, charcoal grey, silver, fawn, caramel. Send \$1 for chart with sample of fleeces to: E. Stormon, Bellambi Coloured Angora Stud, TOOGOOLOO 4313. Ph: 075-831-214.

**POTPOURRI & SACHET SUPPLIES.** We have the largest range of materials for fragrant craft work at the lowest prices in Australia — economy and traditional potpourris, flowers, herbs, spices, essential oils, fragrant pots, drawer liners, sachets, pomander balls, fragrant gift lines, craft board stiffeners, books and much more. We simply are the biggest in the country, but cater to all requirements, the beginner to the chain store. Write for free mail order catalogue, Potpourri & Sachet Supplies, PO Box 53G, NORTHCOTE 3070. Ph: 03-489-8405.

**COLOURED WOOL** from silver grey to jet black. \$10 per fleece. Ph: 060-271-511.

**ESSENTIAL OILS** potpourri and natural products — for aromatherapy and craft work. We are the manufacturers of raw materials for making massage oils, soaps, cosmetics and household products. Our extensive range includes: essential oils, absolutes, fragrances, vegetable oils, gums, waxes, extracts, potpourri, herbs, spices, essences, pottery and containers. Buy from us direct, small or bulk sizes, and save with our low prices. Send stamp for free catalogue to Auroma, PO Box 187, RICHMOND 3121 or call in at 22 Mount St, PRAHRAN 3181.

**HOMESPUN WOOL** 12 ply angora, blends. Ten cents per gram. Ph: 045-721-150.

**COOLEBARGHURK CRAFT COTTAGE** for delightfully handcrafted gifts, fragrant crafts, herbs, soft toys, clothes, tiffany shades, pottery, wooden toys, fleeces, spinning wheels and more. Between Geelong and Ballarat at Staughton St, MEREDITH 3333. Open weekends.

## GARDEN AND ORCHARD

**LARGE RANGE** culinary medicinal herbs, edible plants, excellent herbal 'Health Through God's Pharmacy'. For catalogue, information articles, send 7 x 37c stamps to: Shipards Herb Farm, Box 66, NAMBOUR 4560. Planning to visit Expo 88? Like to join in herb and useful plant courses covering identifying, growing, using culinary, medicinal; held Nambour, just 100 km from Brisbane? Details of courses and farm walk dates send 3 x 37c stamps to above address.

**SEED — FRUIT & NUT** over 160 species offered, 100's of varieties. For list send SAE to Fruit Spirit, Botanical Gardens, DORROUGHBY 2480. Ph: 066-895-192.

**COMPREHENSIVE CATALOGUE** Australian native seeds: 1800 species, price \$6.00 posted. Bliss Partnership, 'The Cedars', BUNDARRA 2359.

**HERBS — CULINARY**, medicinal, repellants, lavenders, old world flowers, fodder trees. Send long SAE for list. Yandiah Nursery PO Box 227, WELLINGTON 2820.

**GULGONG HERBS** 145 Mayne Street Gulgong 2852. Large range of herbs and cottage garden plants available. Minimum opening hours Friday, Saturday, Sunday 10 am to 4 pm. For sales and inspections outside these hours please Ph: 063-741-350.

**TREE GUARDS** new, biodegradable, non-maintenance. Various types from 10 cents each. Discounts for commercial growers. SAE for sample. IRS, PO 67, BRUTHEN 3885 or Ph: 051-575-562.

## FOOD AND KITCHEN

**CHEESE AND YOGHURT** making supplies. Full range of supplies: starters, rennets, mould spores, wax, plastic cheese coating, cheese cloth, hoops, dairy thermometers. Classes also available. Send for a price list today. Home Cheesemaking Supplies, 15 Minns Rd, LITTLE RIVER 3211. Ph: 052-831-396.

**HOME STONE FLOUR MILLS** Mill your own stoneground wholemeal flour for cakes and bread at home with a Retsel Little Ark Stone Flour Mill. 'Endorsed by Housewives Association'. Write for catalogues to: Retsel Distributors, PO Box 712, DANDENONG 3175, enclosing three postage stamps, or Ph: 03-795-2725. Distributor enquiries welcome.

## CLUBS AND SOCIETIES

**LET'S GROW GARDEN CLUB.** A new correspondence club with Glen Heyne, John Mason, Graham and Sandra Ross and Mike Keelan. Benefits include: subscriptions to Garden Scene Magazine (usually \$26), quarterly newsletter, mail order catalogue, exclusive plant and seed collections, workshops, courses, tours and holidays, special discounts — books, tools, products etc. Send \$25 annual subscription to 'Lets Grow', The Garden Cottage, Malmsbury Rd, DAYLESFORD 3460.

# GRASSIFIEDS

## LIVESTOCK

**DONKEY** very quiet jenny, makes excel pet \$150 ONO. Ph: 060-271-511.

**BARNEVELDER AND WELSUMMER** the brown egg laying fowls from Holland. Light Sussex from my show winning strain. All chickens from day old. L. Taylor Ph: 065-627-703.

**COLOURED LAMBS**, angora kids, good spinners' fleeces. Ph: 045-721-150.

**COLOURED ANGORA GOATS** (registered AGB) 2 black bucks for sale. Does and kids occasionally available. Phone Genevieve 02-932-896 AH.

## HOLIDAYS

**HORSE RIDING HOLIDAY** down on the farm. All aspects of horse care & learning to ride. Scenic trail rides, games on horse-back or just laze about the farm, swimming, fishing, canoeing, bushwalking, picnics, hay rides, in friendly country atmosphere at Valhalla Appaloosa Stud, Falls Creek. Unaccompanied children catered for school hols, other times group bookings can be arranged. Ph: 044-478-320.

**BICYCLE TOURS OF NEW ZEALAND** — we feature biodynamic, organic farms and provide all cyclist's services. PO Box 11-296, AUCKLAND 5. Ph: 591-961.

**LOOKING FOR THE ULTIMATE** experience? Visiting New Zealand? Then why not take the opportunity of visiting an isolated sheep farm and stay with a family in their ranch style home. We are Nola and Bruce Dick, have a family of four, and love meeting people world wide. We provide dinner bed and breakfast, and if you wish your own campervan is welcome. For further information please contact us: Mosgiel 0011-64-2489-3477, or write 'Lee Ridges', Hindon, RD 2, OUTRAM, NZ. Situated 40 km from Dunedin, SI.

## PUBLICATIONS

**COMMON GROUND** Please note that in the October issue of Grass Roots (No 63) the above magazine was advertised inadvertently. This publication has been out of print for 12 months. We apologise for any inconvenience caused by this mistake.

**TEXTILE-FIBRE FORUM** is the tri-annual colour magazine of the textile arts for Australia. Subscriptions in 1988 are \$15.50 which includes membership in The Australian Forum for Textile Arts (two-year subscriptions are \$30.00). Sample copy of the magazine is \$5.00, post-paid. Send to A.F.T.A. PO Box 77, University of Queensland, ST LUCIA 4067. Make cheques payable to A.F.T.A. Good information on how to make things is included.

**ORGANIC GROWING** a quarterly magazine about growing food the natural way. Gives you practical ideas for organic gardening, farming, livestock and related subjects. Available at newsagents (\$2) or by annual subscription (\$10 Australia or \$12 overseas). PO Box 228, ULVERSTONE 7315.

**INITIATION INTO GENUINE MAGIC** by Franz Bardon. More details (SAE) from HERMETICS, PO Box 84, WEST END 4101.

**ANIMAL FRIENDS**, quarterly, the magazine for all who love animals. If you share your life with an animal friend this is the magazine for you. Regular features include veterinary column, book reviews, young people's page, lively letter pages plus factual and entertaining features. *Animal Friends* is only \$6 a year. *Animal Friends*, 40 Northam Rd, EAST BENTLEIGH 3165.

**DONKEY SOCIETY OF AUSTRALIA**, for information on Magazine Subscription, Publications, Books and the Care of Donkeys. Contact: Federal Secretary, M. M. Smith, 'Warrawurra', Bushells Ridge Rd, WYEE 2259.

**AUSTRALASIAN HEALTH AND HEALING** — Journal of alternative medicine, Australia's major health care quarterly, emphasising self healing and prevention of illness through measures which raise body defences. Sold at most newsagents and health shops \$3.50 each and by subscription \$12.50 per four issues (1 year) \$23.00 eight issues (2 years). Write Australasian Health and Healing, 29 Terrace St, KINGSCLIFF 2487.

**HOW IS IT DONE?** Why is it used? and many more answers given in *Psychic Information, Explanations and Management* book. Written by a practising psychic. Send \$6 and your book will be mailed to you anywhere. Print return address clearly please. J. Cohen, 8 Nelson St, BROKE 2330.

**UNDERSTAND** the future earth changes and discover the New Age through the pages of *New Age Times* — the newspaper with direction. Subscriptions: \$18 per year (6 issues). Enquiries: PO Box 180, KINGSWOOD 5062.

**MAGGIE'S FARM** Alternative Network Magazine. A unique experiment in Access Press run by a volunteer collective as a regular news service linking many citizen initiative groups and networks world-wide. Planet Earth news, hues and views. Eco-Action, Health and Healing, New Technology, Psychic Reality and Communal Lifestyles. 4 issue sub \$10. Maggie's Farm Media Centre, PO FAULCONBRIDGE 2776.

**TURKEY TALK** — a bi-monthly newsletter for the small-scale turkey breeder and pure breeds fancier. Subscription \$12.00 per year. Sixth issue available now from Night Owl Publishers, Box 764, SHEPPARTON 3630.

**AUSTRALASIAN SURVIVOR** the magazine that prepares its readers for the fast coming hard times. \$2 for sample. PO Box 11, DICKSON 2602.

## MISCELLANEOUS

**MUD BRICKS** — machine made on site. Have been tested to CSIRO requirements. Minimum handling, minimum preparation. Willing to travel, good rates, barter system can be arranged. Also qualified builder willing to give advice. Contact Tony. Ph: 057-215-506. 051-591-425 or 03-762-2336.

**WATER RAM** pumps water with water pressure only, no motors or fuel. Pumps to 200 ft height. Requires fall of 5-20 ft from supply to ram. Pumps 30-220 gal/hr. \$185. Ph: 07-202-3253.

**DEADLINES:** GR 66 — FEBRUARY 29TH  
GR 67 — APRIL 29TH

**ORIGINAL GRASS ROOTS COPIES** 1-35, Vegie Gardeners Companion, Earth Builders Companion, Bumper Book, \$70 the lot. Spinning wheel, horizontal, Tasmanian myrtle VGC, \$120 (incl carders & lazy kate). Roof rack, full length, suit Kombi, \$40.00. Gold Coast. Ph: 075-909-029 Bev.

**RECYCLED BOOKS**, useful and constructive titles. Old music 1800's to present day for piano, organ, guitar, violin etc. All items in good condition. Send for details to S. Carter, Box 73, MORTDALE 2223.

**LISTER MILK SEPARATOR** with 15 gal vat, plus stands. Very solid, ex. cond. \$450. Ph: 079-741-278.

**PAST COPIES OF GRASS ROOTS** Last issue someone advertised past copies (Nos 1-60) for sale for \$110 the lot. I contacted him and they had been sold. Could anyone else make me a similar offer? Carina, 35 Henry St, WINDSOR 3181. Ph: 03-513-735.

**OWNER BUILDER MAGAZINES** copies 2-5 and 7-10 \$20. Ph: 052-411-144.

**GENERATOR NEW 240V 5KVA** powered by 3 cyl. Holden engine. See GR 60. \$1200, will separate or trade 32V or 48V wind generator any condition. ST ARNAUD. Ph: 054-963-268.

**GRASS ROOTS MAGAZINES** 49 issues including no's 1-3. \$100. Ph: 052-411-144.

**FUEL STOVE** — CROWN reconditioned, with chimney. \$650 ONO. Ph: 07-299-6126.

## CONTACTS

**AUSTRALIAN MALE**, young looking 50s, educated, divorced, 5'9", is seeking a permanent lady companion to share life on a country property, inland northern NSW. I need an intelligent, well groomed, active lady in her 40s, with brown hair and full bust. Children welcome. My favourite recreations are camping, boating, barbecues, home entertaining, music and dancing. Non smoker, not religious. Please tell me your star signs. I am Taurus, moon in Cancer. I have a lot of warmth and caring to give, and am looking for a stable relationship which will last for thirty or forty years. Ian, PO Box 1366, COFFS HARBOUR 2450.

**MALE** 39 yrs, tall, slender, intelligent, wide interests, reasonably attractive, would like to share his Queensland property with a reasonably slim, nature loving female. Write to Rod, PO Box 169, ATHERTON, 4883.

**DIVORCED FRENCH MAN** (46) with independent 17 y/o son seeks woman comparable age for establishing independent lifestyle together in NSW by 1988/9. Reply Claude, 3 Duke St, EAST BRUNSWICK 3057.

**SINGLE PROFESSIONAL** mature age male seeking one or two females to help me explore the GR type communities and maybe some overseas trips as well. I have been involved recently in training for personal awareness in TA, psychodrama, journal etc. Also I have taught art for 16 yrs so want to get personally active in all aspects of design, ceramics, sculpture, batik, T-shirts etc. I've good farming experience and am interested in alternative and holistic fitness and health. I am not poor financially. Please write to Explorer, PO Box 591, MONA VALE 2104.

# GRASSIFIEDS

## CONTACTS

**TALL GENTLEMAN** mid forties, non smoker, non drinker, very active, European origin, loves animals and country life, needs honest sincere, loving lady for permanent relationship. Photo appreciated. PO Box 703 KINGAROY 4610.

**SINGLE BUSINESSMAN**, 37, no ties, healthy and fit, seeks contact with alternate women, families and/or groups. I seek to gather new ideas, knowledge and practical experience in the alternate lifestyle, through such contact. Am particularly interested in alternate schooling (Steiner), permaculture, organic farming and passive/active solar design, mud bricking etc. I am a jack of most trades and a hard worker, and offer my labour with no ties, in exchange for companionship and exchange of ideas and knowledge. I'm intelligent, a non-smoker, agnostic semi-vegetarian, not into drugs or boozing. By nature I am a pleasant, warm, considerate physical person, honest, caring and compassionate in my dealings with people. A passionate nature lover, but not fanatical about anything, except enjoying life. I intend opting out next July and will purchase my ideal block soon. I have a 4x4, camping gear, and would supply my own food. If interested in seeking mutual benefits from such contact, then write to Paul, PO Box 355, PARKES 2870.

**BUILDING HOME** weekends, 15 central Vic treed acres. Final escape soon, lonely without little lady/mother sharing me? Like animals, children, talking, loving, plants, peace, food, wine (part share vineyard), music, reading. Big rugged 52, Virgo, quiet, generous, no ties, educated, non smoker. Mike, Keris Park, RMB 4788 MARYBOROUGH 3465.

**MALE FRUITARIAN** 26, knows there must be a female fruitarian out there somewhere. Please contact Phillip Whiteley, PO Box 101, Garbutt, TOWNSVILLE 4814.

**RESOURCEFUL**, honest, simple, versatile, qualified, Indian (Ph.D, age 30, height 163 cm), non smoker, non drinker, seeks attractive, affectionate, thoughtful, spiritual, practical girl, for everlasting relationship. Write Ibrahim, 6/95 Dartbrook Road, AUBURN 2144. Ph: 02-648-2665.

**CAPRICORN LADY** (34) wishes to correspond with single (pref Capricorn, Virgo or Taurus) male (34-44). I am honest, about 5 ft in height, medium build and never been married. My interests are health, fasting, yoga, biodynamic gardening and simple and natural lifestyle. I am looking for someone who has similar interests to mine and who is honest, non-smoker, and not into drugs. Sorry, but divorced or separated guys definitely not accepted due to religion.

**CARING FEMALE** Aries, youthful, happy fifties, ex-country girl, int. art, travel, books, music, C/W & classics. Secretary, not into clubs but likes a drink. Seeks non-smoking tallish well groomed active sensitive male, Aussie or European, with similar interests. All letters answered. Joan, PO Box 79, FIG TREE 2525.

**SINGLE (M)** 38 seeks lady 18-40 to share house. Free board with man for companionship, own room. Must like bush living. R. Williamson, C/- PO, STANTHORPE 4380.

**INDEPENDENT LADY BIKER** (39) I live on a bush block south of Darwin with my Staffordshire Bull Terriers. Have spent many years in the outback and at sea. Presently studying, doing wildlife research and riding my bike. Love to hear from other GR people especially in NT. Box 529 PALMERSTON DARWIN 5794.

**SINGLE MAN**, 30, Taurean, environmentalist, agnostic. Presently building a tropical fruit orchard in Nth Qld. using organic principles. Living simply in a beautiful place with mountain views close to Innisfail. Life moves at a very human pace but is not 'easy' in a material sense. I need a woman companion who understands that quality of life is not dependent on material wealth — these are very different things. If you are 25-30, willing to contribute to and share in a secure and lasting relationship and don't use tobacco, please write. Your race and colour is not important. Lifestyle. Box 1048, INNISFAIL 4860.

**GUY** 37, **SINGLE DAD**, seeks friendship and help from another guy on 25 acres. I need someone to share the ups & downs and sheer hard work. All I can offer initially is free board & accommodation. If you're genuine, honest, love nature, gardening and animals then maybe we could be kindred spirits. All letters answered with details. K. Andrew, MS299 BUNDABERG 4670.

**SINGLE MALE** (34) 181 cm, slim, seeks contact with slim non-smoking non-religious female of pleasant disposition with realistic expectations and a desire to build a secure permanent relationship. Andrew, 76 Queen St, ROSEDALE 3847. Ph: 051-992-602.

**DIVORCED LADY**, 42, Cancer, hobbies fishing, gardening, camping, travelling, country western music, crafts, self-sufficiency, beaches. Seeking contact with male 43-50, north of 26', non-smoker, social drinker. J. Schulze C/- PO CARNARVON 6701.

**LADY** 29, 170 cm. Renting farmhouse alone. Horse & farm active. Peaceful, intelligent. Respect hard power, love soft power. Please correspond to Sally, PO Box 59, SAWYERS VALLEY 6074.

**DIVORCED FEMALE** 50's slim Scorpio, height 5 ft 6 in. Interests, horse riding, music, sport, travel, seeking friendship with male who likes dancing and going out. Smokes and drinks a little. Age 48-60 years. Narelle Ellis, District Hospital, WINTON 4735.

**LADY** (45) would like to change direction of her city life and to develop loving and caring relationship. I like outdoors, nature, hiking, exploring remote areas, prospecting, sailing, travel, reading, keeping fit and healthy. I seek genuine, trustworthy man with a sense of adventure, intelligent mind, a non-smoker, non-religious, not into astrology, no ties. A 'kindred spirit' who leads an active away from the city life or is determined to do so in the near future. Please reply: Qld Lady, C/- 'Grassifieds' Box 764, SHEPPARTON 3630.

**GIRL FRIDAY** needed to share on desert island twixt Auckland and Raratonga. Tropical paradise. Will be self-sufficient with goats, fish, tropical fruits. Living quarters available. Must have good medical history. Write to Robinson Crusoe, PO Box 831, COOLANGATTA 4225.

**HI**. I am a young '50' permanently separated male, financially secure who loves life and the joys it can supply, who wishes to meet a girl up to 40 years young who is pleasant and easy to get along with, who enjoys the outdoor lifestyle. Child welcomed. Nev, Box 493, DARWIN 5792.

**SWEDISH VETERINARY SURGEON** male, age 33, seeks attractive female, non-smoker willing to sail with me aboard 32 foot yacht. Must like hard work, travel and an outdoor life. Contact Elias, 1/13 Grice Ave, PARADISE POINT 4216.

**AFFECTIONATE GEMINI MALE** (46) divorced. Full time prospector (gold). Quiet, clean, caring, smiler, shies away from one night stands. Loves life, gardening, mountains, rivers, yearns for GR lady to 40, homely one man type. Please write to Tom Miles, Caravan Park, DARGO 3862.

**MALE LATE 50's**, handy with tools, virile, published poet, interests nature, music, arts, various crafts, massage, meditation, needs female companion. Maurice, 288 Church St, RICHMOND 3121.

**INTRODUCTIONS**, soulmates, friends, understanding help. Full details, SAE 'Consultus', Box 831, COOLANGATTA 4225.

## LATE CLASSIFIEDS

**CARAVAN PARK** for urgent sale. 1.5 km south of the town of Forbes, on major inland highway Melbourne to Qld. Lovely setting of 6 acres grassed and treed. 26 powered and 26 unpowered sites. All level and drive through. Large amenities block consisting 4 toilets, 4 showers in each ladies and mens. Laundry, 1 commercial and 1 twin-tub washing machines, 1 drier. Sealed road. Very neat 3BR weather-board house, shed, workshop, chicken house. 450 trees, shade, ornamental and fruit. 7 overnight vans, 9 cement slabs. Fully fenced. Further 6 acres on riverfront adjoining included. Lots of extras, lots of potential. Netting \$30,000. Asking \$220,000. Ph owner: 068-522-694.

**WILLOWS GEMFIELDS** central Qld. Ideal hideaway, modern 3BR lowest home on 1/2 acre M.P.L. Electricity connected, septic, carport, work area plus much more, bushland setting in small township. School bus, post office, shop. \$35,000. Apply Hans Luthen, C/- CMB, BOGANTUNGAN 4702.

**I AM A MALE** single parent with teenage children. My age is 42 and I am interested in coastal and country life. I am a tradesman, conservative/radical, nice person. Interests include karate, skiing, theatre, reading. I'd like to hear from a slim, very pretty lady of similar inclination who enjoys children (non smoker). Reply to Tony Clancy, PO Box 521, SPIT JUNCTION 2088.

**FOR SALE** or long term lease. Small 3-4BR cottage on 2 1/2 acres rich soil, plenty of water, power, phone. Small village, good school, 15 km to town. Full price \$22,000. Vendor finance on 1/2 deposit to approved purchaser or lease at \$45 per week. More info PO Box 30, NEW-BRIDGE 2795.

**HIGHLANDS NEAR YEA**. 4 acres, fenced, magnificent views, fruit and shade trees. 3BR log cabin, large basement workshop, stone fireplace, solar HWS, perm. water, SEC. Easy access schools. \$79,000. Ph: 03-772-7695.



# GRASSIFIEDS

Please note the rate increase for the 'grassifieds'. General advertisements will now cost 30¢ per word, and property for sale will be 40¢ per word. Write your advertisement briefly and clearly — abbreviate where possible — and send with the necessary payment to 'Grassifieds', Box 764, Shepparton 3630, to arrive by the deadline for the issue in which you wish your advertisement to appear.

Sender's Name ..... For issue No/s.....

.....Classification,.....

.....Postcode .....Cost .....

**Please complete the above (not for publication) — it helps us with our record-keeping so we can give you better service.**

[illegible]

# Information Available

**WWOOF**

Willing Workers On Organic Farms began life in England during 1971 when a group of young people spent a weekend working at a farm in Sussex as a change from their city lives. The idea caught on and an organisation was born which in 1974 spread to New Zealand. WWOOF started in Australia in 1980 and now has a farm membership of approximately 85. WWOOF is an exchange in return for a chance to learn something about organic growing methods. For some help on your host's farm, smallholding or garden, you will receive meals and somewhere to sleep. If you wish to become a member of this organisation and you are over 16 years of age please write to their new address: WWOOF, Mt. Murrindal Reserve, W.Tree, via BUCHAN, 3885.

## BOC BIRDS AND GARDENS SURVEY 1988.

The Bird Observers Club invites everyone with a garden to become involved in this survey, which aims to discover specifically what attracts native birds to gardens, and particularly what food and water are used. Also, how can we influence and improve conditions to attract more native birds into our gardens?

The time of the survey is 1st January-31st December 1988. People wishing to join in should contact the Bird Observers Club to obtain an A4 record sheet which is to cover sightings in one garden over a three month period. Results will be compiled and all entrants sent a copy of the final results. Prizes are offered for the most interesting set of records from one garden, and for the best 35 mm slide taken in a garden during the survey. Survey sheets can be obtained from:

**The Bird Observers Club, PO Box 185, NUNAWADING 3131.**

## FREE ENERGY BULLETIN

The first edition of this bulletin came out in November. The philosophy behind the Free Energy Bulletin is active participation from all people who want to be involved in something positive, something which will help to eliminate or reduce air and water pollution in the future, while preserving valuable natural resources such as wood, coal and oil for other industrial purposes. The Free Energy Bulletin offers a forum for exchanging ideas, initiating alternative energy projects or linking up people. An annual subscription to FEB (6 issues) costs \$30.00 Australian or \$50.00 overseas payable to:

**B. U. Kusch, Free Energy Bulletin, PO Box 46, WANDIN NORTH 3139.**

## HOUSE SURVIVAL METER

The National Bushfire Research Unit of the CSIRO has devised a method of predicting the probability of house survival in bushfires. The method consists of a cardboard meter, with movable dials which can be positioned according to the amount of fuel around the house, steepness of slope, wall and roof material and presence of trees or sheds. Once these dials have been set to the appropriate positions for a particular house, it is possible to estimate the probability of that house surviving a bushfire. Meters are available from state fire agencies (CFA in Victoria, Bushfire Council in NSW) or from:

**NBRU, CSIRO, PO Box 4008, CANBERRA 2600.**

## FUN WITH FIBRE

'Fun with Fibre' is a weekend of workshops and tours. Informative trade displays will be on view throughout the weekend, and there will be an opportunity to show your own creations. The course will provide a marvellous opportunity to meet kindred spirits, exchange ideas, make new friends, and gain new skills in spinning, knitting, weaving, embroidery, dyeing, and other related crafts. Canberra Spinners and Weavers welcome both beginners and experienced craftpersons to this, their big project for 1988.

Campus and motel-style accommodation will be available onsite during the course which is being held Friday 23 Sept to Sunday 25 Sept 88. Child minding facilities can be provided but this must be requested in advance. Spouses are welcome to join the tours, and to attend the Celebration Dinner on the Saturday. Application forms and further details are available from:

**The Secretary, Canberra Spinners and Weavers, PO Box 15,  
RIVETT 2611.**

## ITCI UPDATE

The International Tree Crops Institute has issued an update on the article written in Information Available GR 63. The joining fee is \$25, but membership is now \$50 a year. It has been increased because of the high cost of activities. New Zealanders will be pleased to know that there is now an office open in their part of the world, via chestnut enthusiast Ernest New at Invercargill. Geoff Wilson is also keen for readers to appreciate that ITCI is not a charitable organisation as mentioned in GR 63, this term is a hangover from the UK origins. For further information contact:

**Geoff Wilson, ITCI, PO Box 283, CAULFIELD STH, 3162.**

# Information Available

## GARDEN WEEK EXPO

The Nurserymen's Association of Victoria will be hosting a garden week expo at Burnley Gardens, Melbourne from March 12th-20th 1988. Various garden themes will be featured, including a Victorian Period Garden, a Bush Garden and a Hill Country Garden. Although there will be trade displays selling nursery products and garden furniture, the main aim of the expo is to educate and give pleasure. Anyone interested in participating in an exhibition should contact:

NAV Suite 108, 486 Whitehorse Road, SURREY HILLS 3127 or Ph: Laurie Staub on 03-690-9788.

NAV has also published a beautiful 'Garden and Water Hints Calendar' which costs \$3.50 and is available through all major gardening retailers.

## PREVENTATIVE HEALTH CARE DIRECTORY

The aims of this directory are to put the general public in touch with quality complementary health care practitioners, schools, centres, products and shops. By so doing this will bring greater awareness and knowledge to our community about the many health care services and modalities now being offered.

Initially servicing Melbourne only, the PHCD was extended last year to Sydney and the 1988 one is national, with all states being represented. This Australia-wide directory is available through retail outlets free. But, if you cannot obtain it from your favourite health food shop contact:

Fran Ph: 03-818-7867, June Ph: 03-758-5791 or Marg Ph: 03-755-1568.

## SUSTAINABLE AGRICULTURE

Els Wynen and Sandy Fritz have written a very useful book entitled *Sustainable Agriculture: A Viable Alternative*. Conventional agricultural production systems are compared with alternative farming methods, and agricultural policy implications for both conventional and alternative farmers are thoroughly discussed. The book is published by the National Association for Sustainable Agriculture and is intended to provoke discussion and increase awareness about issues related to sustainable agriculture. This is a book for the serious reader and recommended to agricultural researchers. It costs \$11.50 per copy including P & P (orders for 10 or more copies cost \$9.50 per copy including P & P) and is available from:

NASAA, Box A366, Sydney Sth, PO SYDNEY 2000.

## BLACK RIBBON

With the Bicentennial celebrations taking place in Australia in 1988 there are a number of people who have decided to boycott these events unless the shame of the white invasion and oppression of the original inhabitants is taken more seriously. One way of proclaiming dissatisfaction is the idea of wearing a black ribbon as a sign of mourning for the suffering of our earliest black inhabitants, and one of hope that 1988 will bring greater recognition of the unique history and culture of the Aboriginal people. Those who feel sympathy with this cause may contact:

AWD, 124 Napier Street, FITZROY 3065.

## SOLAR LIGHTING CATALOGUE

Rankin Solar's new catalogue details all their solar lighting systems, which are aimed specifically at industrial, commercial and local government areas. Solar lighting systems for streets, parks and malls, are detailed in the catalogue, as are timing devices, solar panels and batteries. A grant from the Victorian Solar Energy council, encouraged Rankin Solar to develop their new solar lighting systems, and commit themselves to further development. The new catalogue is available free of charge from:

Rankin Solar, 2A Gatwick Rd, BAYSWATER NORTH 3153. Ph: 03-729-5177. Fax: 03-729-9234.

## CAPERS

Childbirth and Parenting Education Resources and Services is a mail order book business specialising in women's health, pregnancy, childbirth and parenting issues. Films on these subjects are also available and the firm organises lecture tours, seminars and conferences with speakers who are experts in these fields. For an up-to-date catalogue of titles currently available, or to discuss the other services offered, contact:

CAPERS, 42 Lenori Rd, GOOSEBERRY HILL 6076. Ph: 09-293-4001.

## LIFESTYLES

The Queensland Awareness Centre in Brisbane provides a wide variety of activities and services for people interested in their health, including Inner Polarisation, Auric Energy Massage, Pressure Point Release, Reincarnation Readings, Neuro Clearance, Animal Healing, Lateral Enhancements, Guide Readings, Acupuncture Point Repair, Stress Release and Meditation and Metamorphic Technique sessions. As you can see there is enough going on at the Centre to keep both your body and your spirit healthy.

The QAC publishes a magazine called *Seasons* which contains delicious healthy recipes such as Sunshine Salad and Chocolate Slice, a community contacts page, essays on such subjects as Eastern Self Defence and What is Life?, and a letters page which tries to answer readers' lifestyle queries. Further information about the magazine and the Centre is available from:

QAC, PO Box 79, SOUTH BRISBANE 4101, or Ph: 07-229-0200.

## LAND PROTECTION

The Castlemaine and District Land Protection Association are anxious to emphasise that they are not an anti-mining lobby — they are concerned with land protection, land degradation and related issues such as the rights of landowners to determine land use, the review of the Mines Act etc. Land Protection Associations are traditionally across the board pressure groups with no particular social, economic or political affiliations, and the Castlemaine and District LPA are no exception. They are particularly keen for the government to set up an overall land use policy that accounts for the effect of clear-filling on erosion, salinity, rural productivity and rural survival. Anyone interested in an information kit, or wishing to receive the C & DLPA Newsletter at \$1.50 per issue, should contact:

The Secretary, C & DLPA, PO Box 37, CASTLEMAINE 3450.

## THE ANGORA GOAT BREEDERS

The purpose of the society is to maintain the standard of the breed of cashmere type goats and to improve the standard of merit within the breed. We encourage members to freely express their views on all matters of interest to the industry and promote democratic participation in the society's activities and decisions. Our Herdbook records are accepted by all Royal Agricultural Societies or their equivalents in Australia, and are a valuable means of improving flock standards. We try to answer all members' queries and assist them to overcome problems with stock and husbandry. Many cashmere experts are available for advice and assistance. Members receive quarterly updates on the industry and other matters of interest to cashmere growers.

Annual subscription is \$20.00, and inquiries should be directed to: The Registrar, PO Box 232, BERWICK 3806.

## GLENFIELD GOODWILL CO-OPERATIVE

Glenfield Goodwill Co-operative was fifteen years old in September, 1987. The Co-operative was established in 1972 with the aims of preserving the historic Glenfield Farm homestead, promoting organic gardening/farming, and fostering international and inter-racial understanding. The Co-operative is an example of what a dedicated group of people committed to a common set of objectives can achieve. Anyone who requires more information about the Co-operative and its activities can ring 02-602-8095 or write to:

The Secretary, Glenfield Goodwill Co-operative Limited, Leacock's Lane CASULA 2170.

## STARTING A SMALL BUSINESS

This introductory home study course offered by Australian Correspondence Schools is designed to help all those who are considering opening their own small business venture. Following the general program, students can elect to concentrate on any one of five specialised areas: retailing, craft, photography, plant shop management or handyman services, in which a professional consultant guides them in starting a new business and evaluating its potential success.

Further details on these and other courses currently offered by the School can be obtained by writing to:

ACS, 264 Swansea Rd, LILYDALE 3140. Ph: 03-736-1882. There are also offices in NSW (Ph: 02-449-7810) and WA (Ph: 09-531-360).

# Feedback Link-Up Feedback

## Dear Grass Roots,

I saw the letter from Barb Catley in Feedback (GR 64) and got two very helpful books off my shelf to see what they had to say.

*Natural Remedies for Common Ailments*, by Constance Mellor says that skin troubles — 'are nature's efforts to throw out impurities from the body . . . the best way to treat them is to work with nature, i.e. to encourage elimination of impurities through the skin, by cleansing washes, by sun-baths, and by a salt-free diet in which some vegetable oil, vegetables and vegetable juices, salads, and herbal teas are included. The following are especially beneficial — watercress, nettle, dandelion, chamomile . . . (and) comfrey tea'. On bites and stings — 'pain and swelling caused thereby can be relieved by moistening and rubbing with raw onion . . . (haven't tried that one!).

*The Home Herbal — A Handbook of Simple Remedies*, by Barbara Griggs, recommends for eczema — 'red clover flowers, bright orange Marigold flowers (calendula?), and the tiny violet flowers and leaves of Heart's Ease are . . . valued in the treatment of eczema. You can make your own infusion of any one of these, adding a teaspoon of the dried herb — rather more of the fresh — to a cupful of boiling water for 10 minutes. Strain and drink 3 times a day . . .

For external application, burdock leaves, comfrey leaves, elder flowers or chamomile flowers can all be infused, covered. Add a handful to a pint of boiling water, and steep for 10 minutes. The strained infusion is cooled and used for soothing, disinfectant compresses. Comfrey is particularly helpful for flaking scaling skin.'

If stress is the probable cause, 'since tea and coffee are high in caffeine, those suffering from nervous tension should avoid them . . . instead, drink . . . chamomile . . . excellent for frayed nerves . . . lemon balm tea is a fine tonic for depression from whatever cause. Infuse one teaspoon, covered, in boiling water, for 10 minutes. Drink cool . . . 3 times a day, the last dose at bedtime'.

For bites and stings, she suggests:

- Pure lemon juice, or grated lemon rind with all the oils in it
- Oil of eucalyptus, applied neat
- The essential oil of lavender, applied neat
- Nelson's Pyrethrum Liquid . . . made of tinctures prepared from calendula, arnica, dock (soothes nettle stings) . . . St. John's Wort . . . and pyrethrum itself . . . used as a repellent or a remedy.

Muscular aches (e.g. back) — can, she says, often be eased away by massage with the essential oil of a number of aromatic plants, or several in combination. To make your own, 'put a good fat sprig (of rosemary, lavender or thyme) in a glass or enamel pan; pour over half a pint of olive or almond oil and heat gently until all the colour has left the plant'. Strain and use warm. 'If olive or almond oil is beyond your purse, a good light vegetable oil will do'.

I hope GR readers will find this information interesting and useful. Both books I've quoted are well worth buying — I haven't tested many remedies yet, but certainly intend to.

**Rita Summers**  
Kersbrook Host Farm  
Gladstone Rd  
PIONEER 7254.

## Dear Grass Roots,

I have been reading GR intermittently since it began, and find in it lots of interesting and useful information. Sometimes, however, I find things in it which cause me great concern.

One example of this was in GR 63, recommending the use of newspaper for cleaning windows. This does indeed give a nice looking result, because the lead in the printer's ink forms a film over the glass, giving a sparkling effect like lead crystal. Once on your window in a fine film the lead oxidises, becoming highly toxic. I think most people are aware of the brain damage done by the use of lead paints before they were banned, when children would lick the sweet-tasting lead oxide which formed on the surface. Please don't clean your windows with newspaper, as the same thing could happen. Don't clean your stainless steel sink with it, either. Not all cheap old-fashioned remedies are safe.

Also of concern are some of the homeopathic remedies mentioned. Nux Vomica, for example, contains abundant quantities of strychnine. Cinchona bark contains quinine, and is the natural source material for that conventional anti-malarial drug, and was used as such by the South American Indians long before Hahnemann. Other homeopathic remedies I am aware of contain trace quantities of arsenic, which causes a skin reaction interpreted by some people as 'elimination of toxins'. The unfortunate aspect of this is that regular ingestion of trace quantities of arsenic leads to multiple basal cell carcinomas of the skin (i.e. skin

cancer). Older Queensland readers may be familiar with the long-time-banned 'Chemist Bell's Asthma Remedy', which contained arsenic and is known to have resulted in severe skin cancer in the children who were given it. The cancer, of course, took time to develop, so didn't show till those unfortunate people were in their teens or twenties.

Knowing the toxicity of strychnine, quinine, atropine (belladonna), cyanide and the rest; and having personally seen a 'Chemist Bell's' victim aged only 22 years having his eightieth skin cancer treated, I am very sceptical of the claim that 'by definition homeopathic medicines are gentle and non-toxic'. Definitions don't change material reality. And on the opposite page I see 'chemical drugs are potentially dangerous, and don't always work'. ALL types of drugs are potentially dangerous, and don't always work.

**Pam Anderson**  
59 Ison St  
MORNINGSIDE 4170.

## Dear GR,

For ages now I have been meaning to write and I have finally decided to be brave and do it. I really enjoy reading your magazine and try many ideas that I get from it. I especially enjoy Feedback Link-up Feedback but unfortunately I seem to read more and more about people who are breaking their necks to get out of town and buy a 'piece of heaven' or of people who have already made the change. I would like a 'piece of heaven' too but at the moment MY PLACE IS IN TOWN and I felt compelled to write and say that it isn't a bad kind of life, its what you make of it.

Of course, you may not be able to go the whole way with self-sufficiency but a fair degree can be obtained. Kevin Smith's letter in GR 61 is a shining example of how you can make the suburban Aussie block work and what he has managed to do with his block is commendable. My husband and I live very close to the city centre and although we don't manage to do quite as well as Kevin we do have seven fruit trees, almonds, vegetables, herbs and chooks. We keep canaries, budgies, a frenchlop rabbit and Sophie the black miniature poodle, whom I enjoy obedience training. And whilst Peter is hard at work bringing home the dollars, I look after our four month old son, cook, sew, knit and spin. I am an avid spinner and buy good quality fleeces from local farms. So you can see I don't have a minute to waste.

You don't have to waste a lot of time travelling when you live in town either, because everything is close at hand, for example, shops, doctors, vets, health centres, schools and friends, just to name a few. I think it's fun to see just how well you can make city life work for you if you are prepared to bear the things about it that you don't like.

So don't be depressed if you're stuck in town, make it work for you, not against you and then it won't seem to be so long before you realise your own 'piece of heaven' in the country.

Looking forward to seeing more articles on backyard self-sufficiency in 1988.

I am 28 and if you would like to drop me a line please do as I like writing letters too.

**Carol G**  
PO Box 40  
QUEENSLIFF 3225.

## Dear Night Owl Publishers,

Congratulations on your BACKYARD POULTRYKEEPERS CALENDAR. It is just what we chook lovers needed.

Next year could you please put a Poultryman's Reader Reckoner on the back cover such as found on the 'E's-E-2-C' calendars and it will be perfect.

I love the text — full of information, the drawings, he/she certainly caught the expressions on some of those birds' faces, and I loved the space for writing in the tallies — enough room for hens, ducks, turkeys and all.

You have created a much needed and useful keepsake. Thank you.

**Edna Kiss**  
15 Bathurst St  
CONDOBOLIN 2877.

## Dear GR People,

We are about to start building our rammed earth house at Roleystone, 30 km from Perth PO. I am a professional builder and anyone interested in learning rammed earth building is welcome. We would be happy to share our knowledge.

**Bent Thystrup**  
22 Fancote St  
KELMSCOTT 6111.  
Ph: 09-390-4923.

# Feedback Link-Up Feedback

## Dear GR Readers,

We are a young couple with an established business growing and selling BANANAS. We are very concerned by what seems to be the impossible task of producing fruit suitable for marketing without using PESTICIDES or other chemicals.

Our main culprit is the Banana Weevil Borer (*Cosmopolites sordidus*), which attacks the corms of the plant and eventually kills the whole stool. It can wipe out large areas in a plantation and our only defence seems to be expensive and obviously nasty chemicals. There are other problems with Panama (a root fungus) and thrip (which marks fruit badly). Please can anyone send us some INFORMATION on ORGANIC CONTROL of pests and diseases of bananas. We would love to hear from you.

**Jo Vanderkoogh and Terry Brown**  
PO Box 61  
TEWANTIN 4565.

## Dear GR,

Could anyone help me with a problem concerning WATERING EYES that develop to feeling gritty. My mother has been suffering with this problem for some years and as yet no doctor has been able to help. So, as I'm also into alternative living, I like the idea of a herbal solution. Thanks for a great magazine.

**James Thomson**  
114 Grant St  
PORT MACQUARIE 2444.

## Dear Megg and David,

The last seven months have been a rather busy and stormy affair for me, what with writing letters to the Government and newspapers, besides trying to cope as best as I could. The CHEMICAL FARMERS here have been busy giving our local fauna the death knell. We lost all our insect eating birds at the end of last year, our hawks, herons, eagles, owls, and bats are all gone, and where once millions of frogs and toads sang into the autumn and winter nights along the River Wakefield, only a few under dense tree cover survived.

If we leave the running of the nation to the landowning chemical farmers we will surely not survive. That is why I keep fighting and digging in where I can. All those conservatives would have me go, and go to hell. However, I deal with them in my way and know that a just result is imminent.

How nice to know that there is an alternative movement, and that *Grass Roots* gives us comfort and a morale booster!

**Armin Ptak**  
PO Box 102  
AUBURN 5451.

## Dear GR,

I have been reading *Grass Roots* for some time now but this is the first time that I have written. My wife and myself and our 8 year old son John own our 20 acre block at Clunes and hope to be moving up there about May 1988. Our house is on the way up at this moment. My question is that on an overseas trip not that long ago (1983) we noticed some people MILKING SHEEP. This sheep was a very large boned animal and it looked like a cross between a sheep and a goat. On tasting the milk it was nice and sweet. We are trying to find out if this type of sheep is available in Victoria and where one can get one from because they gave plenty of milk.

In my back yard for some time now I have been breeding RABBITS for meat purposes with some success. We have found their meat better than chicken but I was wondering how this type of breeding would go as far as MYXO is concerned, as I have noticed some bunnies in the area with this problem.

The soil on my property is mostly CLAY, what type of vegies are suitable? Thank you for a great magazine which I enjoy reading a lot. Most letters I receive will be answered.

**William Grech**  
16 Glinden Ave  
DEER PARK 3023.

## Dear Readers,

It has come to my notice that Dr D. C. Jarvis in the 1950's insisted that to paint or splash on pure apple cider vinegar 6 times daily on a RINGWORM got rid of the ringworm. They seemingly thrive in an alkaline situation. Dr Jarvis successfully treated ringworms in this way in Vermont USA.

**Molly 'Cardinal' Rhodes**  
St. Barts  
LORNE 2439.

## Hello to Everybody,

Just a note to all the rest of you ever so lucky people. I say ever so lucky because most grassrooters have some form of artistic skills or just such a belief in what you are doing, that I am overwhelmed every time I pick up a *Grass Roots* and reread it for the 40th time.

We are a family of five. My delightful husband Steve, myself Leigh, Trudy our nearly 18 year old daughter, Stevie and Shane, 5 and 3½. Numerous animals and chooks, frankly not enough animals for my liking. Steve was made redundant almost 5 years ago now and that has meant 5 years of unemployment benefits and poverty. The lack of money has honestly not been a problem, but the social stigma attached to a family on the dole has. It's taken a few years to hit home, but we are now sick of the attitude of the locals, 'Poor Mrs F, her husband is on the dole.' It hasn't sunk home to them that it's not Steve on the dole, it's the whole family!!

We left Melbourne for sunny Queensland to escape large power bills and expensive living and also to raise our children away from the violence of the city. The last 2-3 years have been a terrible strain on all and it's only been the unending love for each other that Steve and I have that has helped to hold the unit together, though I might add, it certainly hasn't been a breeze.

**Leigh**  
PO Box 1261  
INGHAM 4850.

## Dear GR Readers,

I'm a GR reader living in Australia's glorious tropics. I'm interested in finding some GR people down the track (Batchelor/Humpty Doo) who are SELF BUILDERS in STONE or MUD BRICK. I would welcome the chance to help build a stone house as I've limited skills in this area, and would love to discuss the pro's and cons of mud brick construction in the tropics. What about underground housing? Where are all the GR people in Darwin? Thanks for a great magazine. Peace to us all.

**Neil Denney**  
6 Morinda St  
DARWIN 5790.

## Dear Grass Roots,

I am interested in SUBTERRANEAN HOUSES but cannot seem to unearth any information on them. Could you put me onto any publications or addresses that might help me? Thank you for your time and trouble.

**Bob Hollis**  
20 Hocken St  
NTH MACKAY 4740.

Here is a list of publications about subterranean housing that may interest other readers as well as Bob Hollis:-

*How to Build your own Underground Home* by Ray G. Scott. TAB Books Inc, Blue Ridge Summit, Penn. USA.

*Underground Houses — How to Build a Low-Cost Home* by Robert L. Roy. Sterling Publishing Co Inc, New York.

*The \$50 & Up Underground House Book* by Mike Oehler. Mole Publishing Coy, New York.

*Earth Sheltered Homes Plans and Designs* by Underground Space Centre, University of Minnesota. Van Nostrand Reinhold Coy, New York.

*Australian Earth-Covered Building* by S. J & D Baggs. Available from Night Owl Publishers RRP \$19.95.

## Dear Megg, David & Staff,

I have enjoyed the articles on cottage gardens and herbs in recent issues. They have helped me identify a couple of herbs I had not been able to find in my books.

Our bees have done very well this year, especially the hives on our acres in the hills. They have produced more honey in 12 months than they had in the previous 4 years. We are now working towards being able to make a living from them in another 4-5 years. By then our boys will all have finished school and hopefully have a means of supporting themselves and we will be pretty close to retiring age so it will give us something better to do than sit around and go 'troppo'. Another use for OLD SOCKS and STOCKINGS, if roughly cut into pieces, is stuffing for cushions and pillows.

I'll close now and wish everyone all the best for the New Year.

**Lynn Sutherland**  
122 High Street  
BRIGHTON 4017.

# Feedback Link-Up Feedback

## Greetings!

Some time ago you were asking for information about **BOTTLING FRUIT** with **NO SWEETENERS**. For years now we have bottled the following in just water: peaches, nectarines, pears, plums and apricots. The taste is great and we don't understand why sugars are called for. With grapes we use a little honey but we find loquats and cherries lose too much in flavour to bother. Cherries freeze extremely well though.

We would be interested in regularly corresponding with other people practising **ORGANIC ANIMAL HUSBANDRY**. Our confidence is slowly increasing as we learn and it would be nice to share this. The few animals we keep have to run at a profit as they contribute towards our living expenses. I guess our main interests here are dairy goats and cows, poultry and bees. There was a mention in your pages of someone keeping bees organically. We don't like to use Terramycin for European Foul Brood and the withholding period is eight weeks! In the garden a problem we have is **THRIP** on our strawberries. They do a lot of damage for around two months each year — certainly not just a brief 'thrip rise'. I've heard planting garlic down the rows helps but all the watering once the garlic was ripe would make the garlic unsaleable. Can anybody help with these queries?

Take care everyone.

**Jackie and Paul Rosenberg**  
PO Box 75  
SEVENHILL via CLARE 5453.

## Dear Grass Roots,

Thank you for your letter about the enquiry on the **STINGING NETTLE JUICE** which appeared in *Grass Roots* October issue. From what I can read, you are very busy on your farm getting everything done. I can understand that one never really finds enough time to do what one wants to. We used to live on a farm 50 km from Kempsey NSW but farm life can be lonely and inconvenient. We like the city more for convenience.

But to come to your point about preparing nettles:

- \* Get hold of a 44 gallon drum or something similar in size.
- \* Fill up drum with water to the top.
- \* Collect nettles by using gloves, scissors and putting them in a plastic bag, empty into drum of water, using a stick, broomstick or old pipe to push them towards bottom of drum.
- \* Fill up drum with nettles to the top.
- \* Make sure nettles are covered with water.
- \* Stir occasionally every week with stick or pipe to let nettles slowly rot down in the water.
- \* When nettles go dark brown and all the green colour has disappeared, then the process is completed.
- \* Use juice to spray your vegies by straining it — so your spray-gun or whatever you are using doesn't clog up.
- \* All the rotted nettles in the drum can be used to fertilise plants, spread it around like a mulch.
- \* Process completed, start a new batch.

Hopefully I have given you enough information. We would be glad to hear from you in the future.



**E Kuhn**  
28 Grove St  
EASTWOOD 2122.

## Dear GR Readers,

We are a young couple (25 and 26) with our nice little daughter Hannah (9 months) and just migrated from Germany. At the moment we are staying with friends in Warilla about 20 km south of Wollongong. There are many reasons why we decided to migrate to Australia. One is, Australia is such a fascinating country, so different to what we have seen before. Here we really love the opportunity to come to a life which really satisfies us and gives peace to our hearts. Like many people we dream of a small block of land which provides us with all we need. In Germany we had really been in the rat race, myself doing a boring job (I'm an electrician by trade) and Rirjana staying at home with Hannah the whole day. Our intention is to buy ourselves a caravan and tour Australia looking for a place where we can fulfil our dream. We would be happy if we could stay at some places and get **EXPERIENCE** in **FARMING** because we know only a bit from theory and from our garden in Germany. So if you've already done this step and wouldn't mind some nice company and help we would be happy to hear from you.

**Jurgen and Rirjana Kreiselmaier**  
53 Phillip Cres  
WARILLA 2528.

## Dear GR Readers,

As a city dweller who is gradually becoming more aware of the damage we are doing to our natural environment, I would hope there are some *Grass Roots* readers who can give me some advice on how to do my part in cleaning up our surroundings. Can anyone give me some home remedies to replace **COMMERCIAL WASHING POWDERS, DETERGENTS, FLY REPELLENTS AND ANTI-ITCH OINTMENT**. I have found some herbal extract products at the health store to perform some of these functions but they were so expensive that it would be cheaper to buy new clothes and dishes instead of washing.

Also I have heard that powdered sulphur is good for deterring **SPIDERS**. Unfortunately I am highly allergic to sulphur. Is there an alternative?

**Owen Marks**  
3/17 Prince St  
CRONULLA 2230.

## Greetings All,

I would like to thank Megg and David for this marvellous magazine. The reason for this letter: I would like to contact **ALTERNATIVE LIFESTYLE SPIRITS**, who are alone and caught in the city. There are lots of us who can't get out of the rut by ourselves so perhaps we can get together and do something about it. I wish to move to the country and restart my life in a better way. Although I am 32 years of age I have very little experience in the country as most of my adult life I have lived in large towns and rural coastal areas. I was married for six years — this ended abruptly last January and now I am alone and wishing to restart my life afresh. I just want to live a quiet simple life without the pressure of this bureaucratic system closing in around my head in a city. I dream of growing my own vegies and fruit without all the chemicals which bombard everything these days. A cow, goat, fowls, geese and anything else that can produce a self-sufficient lifestyle complete the picture.

If anyone has any experience in this type of idea, I would be happy to hear from you as any suggestions would be most welcome. Peace and contentment to all.

**Wayne McFarlane**  
'Rainbird Croft'  
STOCKINBINGAL 2725.

## Dear Readers,

I am hoping to build a **STEAM ENGINE** for running an electric generator and I'm wondering if anyone can supply me with the necessary information to do this.

**Eric Jelfs**  
Main Rd  
ROSS GLEN via KEW 2439.

## Dear David and Megg,

Not enough people are aware of the wonderful properties of **FLORENCE FENNEL**. It is a perennial and year after year will produce an abundance of bulby succulent new shoots without any care or insect trouble at all. Its new shoots come in winter when most of our garden is flattened with frost. Highly nutritious, these shoots are eaten like lollies by my children. My family and I live on Sunrise Community next to Ontos and Murrindal Communities. It's a beautiful scenic area with a strong grass roots movement. We are very busy at the moment producing tofu and running a trail riding business and are always happy to welcome visitors, especially if they like helping.

**Judy and Bill Harvey**  
Sunrise Farm  
BUCHAN 3885.

## Dear Grass Roots Readers,

I've just started reading your great magazine. Reading stories about different people's dreams come true makes my dreams seem more possible than ever.

My family are great lovers of all animals. We have three cats, three dogs, two turtles, two guinea pigs and two aviaries full of birds. We once had chickens and ducks but the backyard was too small because we've planted heaps of trees in the yard. I would love to know about **NATURAL HERBAL REMEDIES** for when one is sick. Does anyone know how to get rid of ants? We have them in the roof — if we spray I don't want the animals to get sick. We have a problem with fleas in one room and how do you get rid of flies? They keep after my dogs, constantly biting their ears. I would love to know easy **VEGETARIAN MEALS** as we are trying to kick the habit of eating meat. Any information would be gratefully appreciated.

**Maria J James and family**  
106 Barker Ave  
SAN REMO 2262.



# Feedback Link-Up Feedback

## Dear GR Readers,

Have you ever noticed the poor performance of hand driven post hole diggers, especially in hard or stony ground? Even after much twisting and turning the hole ends up at one finite size — great if all your posts are one foot thick, bad news when you have to attempt to compact a collar around the post thicker than it is. The result is loose and sloppy in the ground. Despair no more and leave the cement for more worthy tasks. That bag of cement just repairs the hole inwards and adds weight to the pole whilst lightening your bank account, because where the cement collar ends the earth begins. The earth holds the cement collar which in turn holds the post.

Now for the improved 'el cheapo' method. First drive the POST HOLE DIGGER into the ground and weld a bird stand on it as I have done or give it to someone you hate. Next take your trusty crowbar and drive straight in the centre of the hole you wish to make, lever sideways. You can now go around in a circle with the bar about two inches bigger than your post is thick. The trick is to always take that bit out of the centre first — it gives you something to break the edges into. Select a jam tin that is more or less able to go down the hole sideways, rotate the tin in the hole and it will fill with earth, empty out and continue to the depth you require.

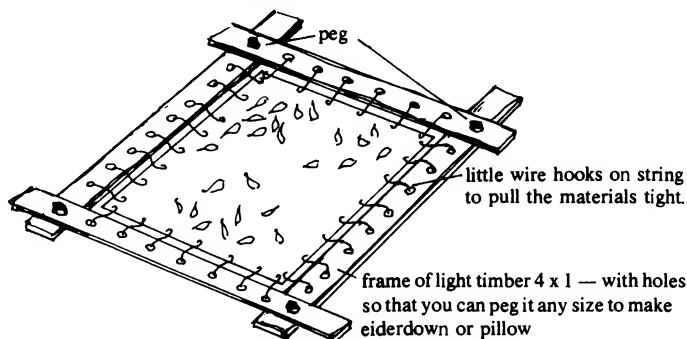
You should now have a hole with only about two inches of collar to ram or compact. Use the blade of the crowbar to ram, not the round bit and don't be impatient, ram a bit at a time as you wish to compact the earth bottom to top. If you do this correctly you will hear the post begin to 'talk' to you as the shock travels up it. When properly done the result in an engineering 'sheer strength' test is the same as for a cemented post.

Other advantages: You can dig angled sideways for corner or strainer posts. Great exercise decreasing the waistline and firming the bustline. Speaking of which I am still waiting to hear from you ladies.

**G P Thorpe  
PO Box 37218  
WINNELLIE 5789.**

## To All Doona Makers,

Whoa bullocks whoa! You don't wash DOWN TO MAKE PILLOWS. My granny used to collect all the down of geese and ducks, it was put into clean chaff bags and hung up to get the smell off. When she had 'miles of it' and the itinerant gypsies' camp came around every year and camped at the crossroad, the 'gitana' used to come home and do the 'eiderdown'. It was made like this: the down spread over the cloth then the top was put on and stretched by the edges and quilted or just like a big pillow.



The wood frame was put on wood horses like carpenter's one in Australia.

The home wool one was made differently and needed a machine to tease the wool properly. The machine is not easy to make but I can describe it if anyone is interested. I've got an old photo and the rough measurement.

Even if it looks like a trampoline it is not to be used as such. Being always ahead and ready to sacrifice myself in the name of progress, once — only once — I took a high dive into the heap of feathers, with disastrous and unappreciated results. I shot through the fabric. Eager hands dragged me out, not to help but to pull my pants down and granny caressed my dear little bum with her huge hands which were like lumps of wood, as she was always driving the team of mules in the wagon. But this was nothing. The hardest part was that gypsy girl laughing at my bare bum. It still hurts 50 years later, especially when the 'gitana' writes to you and mentions 'you remember your flogging Miguelito?' That's when it hurts. She is 86 and still she remembers.

**Mike Bredillit  
Bald Hills Station  
VIA COOKTOWN 4871.**

## Hello Everybody!

I am hoping to meet some GR like minded people who live in GEELONG or close to it. I have only just moved here from the country and have no friends in the area. I am 20 years old, vegetarian, animal lover (I have four horses) and interested in all aspects of a grassroots survival. I don't drink or take any drugs. So if there is anyone in my age group, male or female who would like to make a good friend then don't hesitate to write. I will reply promptly!

**Kathleen Denigan  
Site 20 Kiloran Motel and C/Park  
WAURN PONDS 3216.**

## Dear Megg,

In our 5 acre plot we are only allowed, or advised, to have 10 goats, otherwise we get a worm problem. But in springtime how quickly the number increases. We have now 3 lots of twins and a single baby wether. Of course we shall cull. One wether with a superb coat will have to go, but we shall have to wait until August to 'freeze' him. You know we have never found that we make any money on the goats. People say: sell the fleece, sell the milk etc, but when you don't have a milking-shed, you are not allowed to sell milk. We drink it and, as we only have two milking Saanens, we are all right, the other goats are Kashmirs, and so tame. As two of the little ones are still being bottlefed, the other young ones mill around and even our Beth, ready for 'production' next time she comes into season, still wants to join in. They climb over Godfrey, jump into his lap, or drape themselves around him like a scarf. But we also found it isn't only because we give them time with us, we heard that their father has a marvellous temperament and his offspring are always tamer than anyone else's.

This year I have an autobiography with a publisher. I have worked on it a long time and feel I don't want to alter it any more. It starts when I was five and ends (including the after-war years) here in Australia, with the story you published 'Watch for the Three Pines', just adding one sentence to bring it to its conclusion. In the meantime I go on writing. But first our flowers have to be harvested. As it is only a family venture, we two will be terribly busy from now on, so that all my writing has to be done post-haste now.



**Maria-Louise Stephens  
PO Box 138  
MONBULK 3793.**

## Dear Megg and David,

Thank you ever so much for your kind help, and I love you for it. I received so many replies and I am glad to find out so many nice people in this rotten world. Life is really good when you find a few good friends. I'd just like to thank all the people who had written to me, but because of my health problem and my poor eyes, I can't reply to all of the letters. But I am ever so grateful and I wish those people all the best with God's help.

**Renny Devenyl  
BODALLIN 6424.**

## Hello Grass Roots,

After eight years in Sydney we will finally be moving back to the bush. There are a few things I'd like to ask readers about.

Firstly as I worked in transport in Sydney I met a lot of people, one who worked for a health food company. While he was collecting a consignment of lemon grass I asked about other herbs and I was told most herbs are imported and usually cost about \$7.00 per kg. One was DANDELION as dried root, I've let these grow in my vegie patch for 18 months, sometimes to the size of small parsnips. It's used as a coffee substitute. I've had the granulated coffee from West Germany and can't tell the difference. The main thing about all this was that the bulk of HERBS sold in this country are imported, for want of a consistent bulk supplier, even though after Chernobyl shipments of herbs were being condemned for excessive radiation on arrival in this country. So could someone put me in touch with a HERB GROWERS CO-OPERATIVE if there is one, either selling locally or overseas. Anyone thinking of starting one please get in touch, also anyone just interested as I will pass on any information I receive.

Lastly we have a Lister milk separator and I'd like a maintenance leaflet or sheet on it, can someone please help? The address below is our old one and mail will be forwarded for quite a few months. Love to all.

**Alan and Julie Massey  
193 Galston Rd  
HORNSBY HEIGHTS 2077.**

# Feedback Link-Up Feedback

## Dear GR Readers,

This is a composite answer to a number of letters in GR 62, usually I write privately, but this is too many!

To H Hofmann, Concord. Invest in some electric fencing and a few goats, they do very well on BLACKBERRIES, and clear them out usually in a year or so — all you have to do is deal with the dried canes. Running a tractor over them, and burning them (they'll be bone dry) is the easiest. Leave the goats on to eat the new growth, and you will have won the battle. As a dedicated organic farmer I'm against sprays; but they don't work for blackberries anyway, I've been told.

In reply to Julie Faithfull of Narracan. DANDRUFF in animals is wholly and solely an iodine deficiency, which clears up when the animal is fed seaweed meal or extract. Presumably kelp tablets would do the same for a human animal?

In reply to Steve & Kristal, Tabulam. DERMATITIS seems to clear up if a reasonable range of vitamins and minerals are taken and sugar, salt, tea, coffee and refined foods avoided. Vitamin A, zinc and kelp help animals beat it (and getting off tinned food).

The Campbells of West Brunswick, re THISTLES and BRACKEN. Thistles will give up if cut three or four times as they are growing; improving the humus content of your soil discourages bracken — manure, compost, anything you can add. Bracken likes a potassium deficient soil apparently. I didn't know this until I spread the goat manure on this farm, wondering what I was going to do with bracken after, imagining it would grow to ten feet — it disappeared.

Gerard Mahoney of Nowa Nowa, re WARTS. They are very easy to clear up on animals if extra magnesium is fed, but animals make their own vitamin C. With humans I found one had to take about 6-8 g of vitamin C as well as the additional magnesium (orotate seems to work quickest).

Anita Lander of Maryborough. I love PICKLED EGGS, and have a very easy recipe from an ancient *Mrs Beeton*. Boil the eggs until hard, at least ten minutes. At the same time boil the vinegar with as many spices in it as you like. Leave the vinegar boiling, peel the eggs. Jam them in a bottling jar so there's enough room for the liquid to get around them, and fill up with the vinegar. Leave for two or three weeks before you eat them.

Shirley Hogan of Capalaba. We used to use SEAWEED just as it came off the beach on asparagus beds in UK, it had been used annually for 60 years and the beds were super-productive. It was spread about six inches thick each year. You could use it in compost for more delicate plants. It's the best there is.

C Molony of Moss Vale. I would hazard a guess that the kids find WOMBAT HOLES interesting because the soil that is turned up holds minerals they need. My kids have benefited immensely from a drop or two of seaweed concentrate each week (diluted of course). I guess we do not realise that kids need quite a lot of minerals.

Lindy Medcraft of Gidgagannup. When I worked on farms where we hatched eggs in incubators, all the WATER BIRDS' EGGS had to be sprinkled with a watering can or similar daily, or they wouldn't hatch. In fact the bane of my life was the job of watering goose eggs on a farm where they didn't have access to a pond, only drinking water. They could not keep their eggs damp enough, so I used to have to crawl into their hide once a day, do battle with Mama and water each lot of eggs!

I hope some of this information will help.

Pat Coleby.

## Dear Nature Lovers,

We have a 2500 acre property on the north west slopes in Northern NSW. We are a DOWN TO EARTH FAMILY 44, 36 with 4 children, that believe in a basic lifestyle in harmony with nature as far as possible, and self sufficiency. We enjoy good company and intelligent conversation and our hobbies include music, handcrafts, reading, horses and other animals and chess. We are not interested in finding out the maximum profit this property is capable of producing but just the amount we need to be reasonably comfortable and so have more time for living. We don't take drugs, smoke or drink nor are we fanatical or extremist about anything, but we are particular about matters of honesty and morality. So if you are a genuine alternative lifestyle couple or family who are also seeking this way of life and joys which come from the love of nature, peace and quiet, freedom and creativity, drop us a line, we'd love to hear from you.

J & K West  
'Willow Creek'  
Gulf Rd  
EMMAVILLE 2371

## Dear Grass Roots,

This is my first letter to you, I have been an avid reader of your magazine for many years. My geese, chooks, ducks, 5 cats and dog (and family of course) thoroughly enjoy it, thank you.

Myself (Carmel), my husband Fred and daughter Misty 8, left Melbourne many years ago. After wearing out our itchy feet and being gypsies for 10 years we have finally found our bit of dirt — five acres, small but enough for us, in Far North Queensland, near RAVENSHOE on the Tablelands — and our dream has come true. We have a beautiful permanent creek, a lovely swimming hole as we are water people. We hope to replant this fairly dry country and make it GREEN again. Our land up top is very rocky, we are thinking of a stone house in the future. At the moment we are getting together 2 buses as temporary dwelling, as buses are fairly cheap up here at present and we will move onto our land with our large family at Christmas. If there are any GR women who would like to drop us a line or who are in this area I would love to hear from you. I enjoy sewing, painting, gardening, cooking and life itself.

Also I was wondering if anyone knows the whereabouts of very dear friends of mine. I lost contact with them from Cockatoo before the fires of '78. Their names were Frank and Jenny Johnston and they had two little boys. I would dearly like to make contact with them. Peace and happiness to you.

Carmel, Fred & Misty Bushell  
C/- PO  
RAVENSHOE 4872.

## Dear Grass Roots Readers,

A very dear friend sent me a book mark several years ago; it reads: If I keep a green bough in my heart the singing bird will come. I keep on repeating this and feel that my singing bird may have lost its way. Maybe I am not thinking positively enough.

Would dearly love to correspond with persons who, like me, feel and know that they have lost all in this world and are quite alone in everything after many years of sheltered loving family life — I always show a happy smiling face to the world, but am tearing apart inside all the time. How do you deal with this, apart from keeping continually busy with craft works and helping others? Those in this position, could we correspond and tell each other happy things?

3 score years + 10  
C/- PO Box 764  
SHEPPARTON 3630.

## Dear Friends,

We of the Walsh River Community, in NQ are seeking help and advice. We have been operating for several years in a very loosely structured way. Now we feel the time is right to put things on a more legal basis. Could anyone advise us of a solicitor who is sympathetic to the ideals of the alternative lifestyle? We would also be very interested to hear from people on OTHER COMMUNITIES about how they operate. We live on leasehold land, and are wondering if we should try to freehold the property. We would be most grateful if anyone would share their experiences with us.

Walsh River Community  
PO Box 64  
HERBERTON 4872.

## Dear Grass Roots Readers,

I was interested to read the article on DONKEY POWER ON THE FARM in GR 63. The authors mention that COLLARS are recommended for heavy work because they 'distribute the load evenly on the donkey's shoulders'. But then they seem to dismiss the use of a collar, due to problems in fitting a collar or obtaining one.

The collar was designed as the most efficient means by which the donkey could exert the maximum amount of power with the minimum discomfort to itself. The breastplate, properly adjusted, is quite satisfactory for light work such as pulling a small cart about. But, in my opinion, the breastplate is quite unsatisfactory for heavy, low-draught work such as ploughing, or any other type of cultivation, unless you are only going to 'play about' with the implement for 10 minutes or so.

Of course, I shall be accused of having a vested interest in my statements, being a collar-maker by occupation. Nevertheless, I stick by them. So the argument about donkey collars being hard to come by no longer holds water, either. It is possible to manufacture a collar (or two) to any desired size and specifications.

Mark Porter  
C/- T J Peel  
Werombi Rd  
CAMDEN 2570.



# *gumnut gossip*



Megg Miller.

There have been days these last two weeks when we've wondered if we'd ever get this issue off to the printers, and other days when it's been just too hot to care. As the temperature in the district hovered steadily around the century mark we willing workers have cast aside thoughts of tropical beaches and shaded creeks, wiped our sweaty brows and intrepidly worked on despite all sorts of overwhelming obstacles. Not surprisingly, there have been temperamental displays from time to time, but nothing to equal those exhibited by our supposedly trusty machinery.

Being the last residence down the powerline, whenever there are extraordinary demands for electricity, like during very hot or cold weather, the voltage drops, sending our office machinery into a spin. The typesetter has seen many hot summers and with age has developed a degree of resilience. In its youth however it would become frantic and haphazardly spill out type reminiscent of Coptic lettering, but these days it chugs along until the temperature hits 40°C, when the resultant type wavers irregularly down the page. The photocopier on the other hand hasn't missed a beat until this summer but for the last ten days has been on an intermittent strike. Taken to town for attention it performed beautifully, but back home could manage only one or two copies before jamming resolutely. We now have the SEC monitoring the voltage, so hopefully they will come up with a solution that enables us to work on during the next heatwave.

Many readers will have received notes from Gail over the last year in response to queries they made and will be delighted to know she is expecting her third child later this year. Gail started off as a full timer but found the work too demanding with livestock, garden and a young family, so reduced it to one or two days a week depending on the work we had for her. We're already missing her infectious laugh and cheery nature but wish her well with her confinement. The gap left has been filled by Julie, a 'new chum' to the country who is a constant source of amazement and interest to us with her East End accent and English terminology (did you know thongs in UK are called flip-flops?). It takes a while to work out if we're talking about the same object but already we have developed a wider vocabulary and our mispronunciation of French words has improved. It is a wonder Julie took the job — she could well have been frightened off when a chook house landed upon her car during a recent storm, first day at work too. Imagine the stories circulating around the East End of London by now!

The trivia night celebration mentioned last issue was most enjoyable but terribly tame in comparison with earlier evenings. We chose a royal theme this year because of the media's preoccupation at the time with 'the' family. I remembered to remind David to take his camera but alas, it had the wrong lens on and, whilst we have some wonderful shots of bejewelled queens, daring cleavages and oversized ears, they are overlaid with a misty haze which makes them totally unsuited to reproduction in the magazine. We were too busy prior to the event to organise any awards, but Kath saved the evening with the presentation of a suitable patron saint for each of us. She had obviously researched the subject well because the saints and

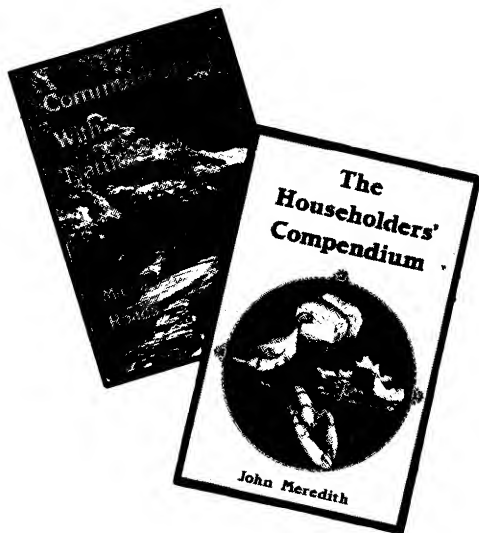
their attributes were embarrassingly astute — except I can't work out why there has never been a protector of chooks or their keepers. Perhaps there is an opening for me here?

Speaking of chooks — and yes, there are still some poultry calendars left — we've had a little pullet in the office for a day or so who's been so entertaining we nearly offered her a part time job. She had torn her wing badly and needed to be in a fly-free environment until the wound dried out. She'd started off in a box with a mesh top, but quickly learned how to escape and proceeded to walk around talking loudly. She answered all questions, examined the carpet thoroughly and seriously set about redecorating its pattern. When I went to put her out the second evening she wasn't to be found and it took a thorough search before I located her, fast asleep in a pullet sized half-full statement box. We were all pleased she'd recovered sufficiently to go outside but quite missed her the next day.

Our impassioned pleas during last year for shortened versions of your thoughts in Feedback have been most rigorously followed, to the point where this issue we've been able to catch up on our backlog. If you have hung back, not wanting to stretch our full mailbag even further, now is the time to share your thoughts or experiences with us. It's important to have feedback on articles, to have constructive criticism or debate and to learn of other solutions and ways of doing things. The early part of a year is always quiet, no doubt because many readers are away on holidays or on the move, so you have a greater chance of your letter making its way into print without a wait. Your input makes GR a more lively, vital and interesting magazine.

During the coming months we're going to be looking closely at GR — the major interest areas, types of articles, depth of information and references and resources offered for personal follow up, in other words looking at where we are going and seeing that it is meeting your interests and needs. If you have any special thoughts or suggestions relating to this, do write in and share them. They needn't be for publication but simply for our help and guidance — over the years many of the changes we've made have in fact come from readers' suggestions. In the next issue we hope to include a questionnaire that will enable us to pinpoint more succinctly your interest areas and requirements. It's difficult to be objective when we're caught up in the day to day running of the business and as we can't each have a few months off to sit back and meditate on it all, however appealing that prospect is, the most sensible course is to seek guidance from you. Much is being said at the moment about our Bicentennial year, that it's a time for looking forward as well as for looking back. We too are doing this and what better time than the start of a new year. It's ideal timing for turning inwards and reviewing previous directions and achievements, and using the findings as the foundation for what we want to do in the future. It is your ideas, experiences, stories and needs that provide the cladding on this framework. In the months to come we look forward to continuing the practical and informative articles that one associates with GR, and to the amusing, poignant and rich variety of stories that come from readers who are human, honest and real.

# More Great Night Owl Books



## Communicating With Nature

*Michael J. Roads*

144pp \$9.50 post paid

This book shows us how we can work better with nature in a more direct and spiritual way. A book for the new farmer, conservationist and dedicated gardener.

## The Householders' Compendium

*John Meredith*

210pp \$10.50 post paid

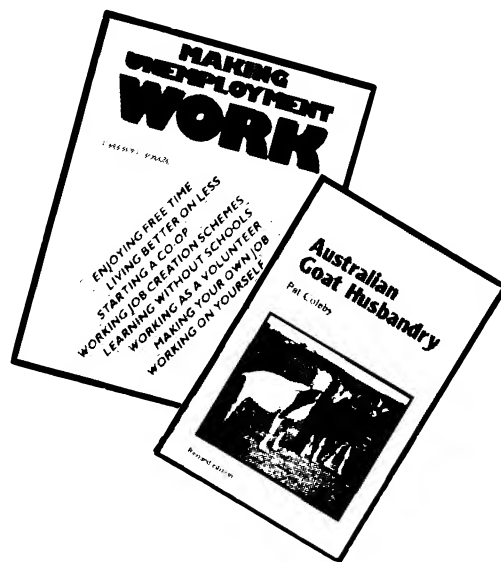
Consult this book for new ideas on family meals, what to do with seasonal gluts of fruit, how to make insect repellent, cure warts and more. A valuable source of information on being self-sufficient in a pre-packaged world.

## Making Unemployment Work

*Cheryl Paul*

160pp NOW ONLY \$9.50 post paid

This is an informative and inspiring account of how to make the most of your time while unemployed. It is a practical and positive discussion of the issues and options available to unemployed people.

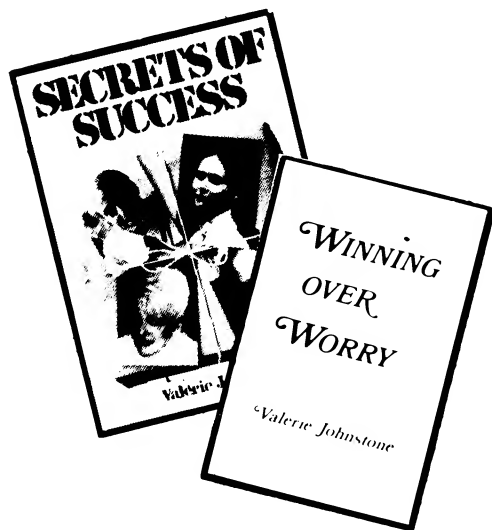


## Australian Goat Husbandry

*Pat Coleby*

128pp \$8.50 post paid

This is still the most popular Australian goat book available. It emphasises improved management and the prevention and handling of health problems.



## Secrets of Success

*Val Johnstone*

136 pp \$15.50 post paid

A collection of thoughts on success from some of Australia's most wellknown people. It provides us with a rare insight into the lives of people we often see and hear about. Personalities include Jeanne Little, Bart Cummings, John Laws and Jon English.

## Winning Over Worry

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